Puma III Series
User Manual

http://www.GCCworld.com

V.6 2012 Feb.

NOTICE

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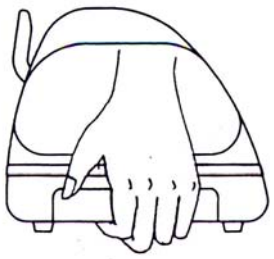
V.6 2012 Feb.

Important Information

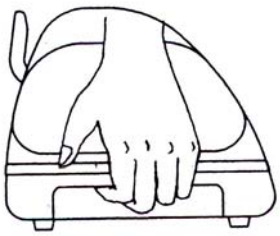
Thanks for your purchase of GCC *Puma III* Cutting Plotter. For your safety and to optimize the performance of the Puma III, please read the user manual completely and keep it in a correct location.

PRECAUTIONS IN USE

- For safety concern, please always hold the cutter firmly **from the bottom** when moving it. Do not move the cutter by clasping the depression area on both sides.



(O)
hold from the bottom



(X)
hold the depression area

- Do not shake or drop the blade holder, a blade tip maybe fly out.
- During operation, keep away from any moving parts of the cutter (such as the carriage, drums). Also be careful that your clothing and hairs do not be caught.
- Always connect the power cable to a grounded outlet.
- Always use the accessory power cable that is provided. Do not wire the power cable so that it becomes bent or caught between objects.
- Do not connect the power cable to branching outlet to which other machines are also connected, or use an extension cable. There is danger of overheating and of misoperation of the machine.
- Keep the tools away from children where they can reach.
- Always put the pinch rollers within position of the white marks.

Contents

Important Information

1. General Information

1.1 Introduction 1-1
1.2 Package Items 1-1
1.3 Product Features 1-2
1.4 Front View of Puma III 1-3
1.5 Back View of Puma III 1-4
1.6 The Whole View of Puma III 1-4
1.7 The Left-hand Side of Puma III 1-5
1.8 The Right-hand Side of Puma III 1-5

2. Installation

2.1 Precaution 2-1
2.2 Stand & Flexible Media Support System 2-2
2.2.1 Stand Installation (for P3-60) 2-2
2.2.2 Stand & Flexible Media Support System (for P3-132S) 2-3
2.3 Blade Installation 2-6
2.4 Cable Connections 2-9
2.4.1 USB Interface 2-9
2.4.2 Parallel Interface 2-12
2.4.3 RS-232 Interface 2-13
2.4.4 Data Transmitting 2-13

3. The Control Panel

3.1 The LCD Panel 3-1
3.2 Menu in On-line Mode 3-2
3.3 Menu in Off-line Mode 3-3
3.4 Menu Items 3-4

4. Operation

4.1 Media Loading 4-1
4.1.1 Loading the Sheet Media 4-1
4.1.2 Loading the Roll Media 4-3
4.2 Tracking Performance 4-6
4.3 Cutting Force and Offset Adjustment 4-7
4.4 When Completing the Cutting Job 4-9
4.5 Puma III Print Driver setting 4-10
4.5.1 Puma III Print Driver setting>Option Page 4-10
4.5.2 Puma III Print Driver setting>Paper Page 4-12

5. Accu-Aligning System

5.1 Introduction 5-1
5.2 Calibrating the System 5-1
5.2.1 Media Calibration 5-1
5.2.2 AAS Calibration 5-2
5.2.3 AAS II on Puma III 5-3
5.3 Printer Test 5-4
5.4 Contour Cutting 5-6

5.5 Tips for AAS 5-8

6. Maintenance

6.1 Cleaning the cutting Plotter 6-1
6.2 Cleaning the Grid Drum 6-2
6.3 Cleaning the Pinch Rollers 6-2

7. Trouble Shooting

7.1 Non-Operational Problems 7-1
7.2 Operational Problems 7-2
7.3 Communication Problems 7-3
7.4 Software Problems 7-4
7.5 Cutting Quality Problems 7-5

Appendix

A-1 Specifications of Puma III A-1
A-2 Blade Specification A-2
A-3 CorelDRAW Plug-In Instruction A-3
A-4 SignPal 8.5 Instruction A-4
A-5 EasySIGN Instruction A-5
A-6 GreatCut Instruction A-6
A-7 Illustrator Plug-In Instruction A-7

Chapter 1 General Information

1.1 Introduction

Puma III series cutting plotters have been designed to produce computer-generated images or perform contour cutting on sheets or rolls of vinyl media.

This manual covers the following models of Puma III series cutting plotters:

• P3-60	for media width: 70mm(2.76”) ~ 719mm(28.3”)
• P3-132S	for media width: 70mm(2.76”) ~ 1470mm(57.87”)

1.2 Package Items

The package of the Puma III model contents the items listed below, please check carefully. If you find any item missing, please consult your local dealer for further assistance.

<table>
<tr><th>Standard Item</th><th>Quantity</th></tr>
<tr><td>1. Cutting Plotter</td><td>1</td></tr>
<tr><td>2. Stand Set (for P3-132S only, optional for P3-60)
● 2 piece of T-shape stand
● 1 piece of stand beam
● 18 pieces of M6 screws
● 1 piece of M5 L-shape hexagon screw driver
● 1 piece of Installation Guide for Stand Set</td><td>1</td></tr>
<tr><td>3. Flexible Media Support System Package
<table>
<tr><th>Items</th><th>P3-60</th><th>P3-132S</th></tr>
<tr><td>1 set of Roll Media Flange (2 pieces)</td><td></td><td>V</td></tr>
<tr><td>1 set of Roll Holder (2 pieces)</td><td></td><td>V</td></tr>
<tr><td>1 set of Roll Holder Guide Bushes (4 pieces)</td><td></td><td>V</td></tr>
<tr><td>1 set of Roll Holder Support (2 pieces)</td><td></td><td>V</td></tr>
<tr><td>32 pieces of M6 screws</td><td></td><td>V</td></tr>
<tr><td>1 piece of M6 L-shape hexagon screw driver</td><td></td><td>V</td></tr>
<tr><td>1 piece of Roll Base</td><td>V</td><td></td></tr>
</table></td><td>1</td></tr>
</table>

4. Accessories ● 1 piece of User's Compact Disk ● 1 piece of AC power Cord ● 1 pieces of data cable (RS-232C) ● 1 pieces of data cable (Print cable) ● 1 pieces of data cable (USB cable) ● 1 set of Blade Holder Assembly (Installed in tool carriage of the cutting plotter) ● 1 piece of Blade (Installed in Blade Holder) ● 1 piece of Safe Blade ● 1 piece of Cutting Pad ● 1 piece of Tweezers ● 1 piece of Promise Card	**1**

1.3 Product Features

The following are the main features of the Puma III series cutting plotters:

- Tri-port connectivity provides you with greater flexibility
- Up to 400-gram cutting force
- Up to 600mm/per second cutting speed
- Guaranty 3-meter tracking
- User-friendly, multi-language control panel
- Enhanced Accu-Aligning System for automatic contour cutting

1.4 Appearance of Puma III

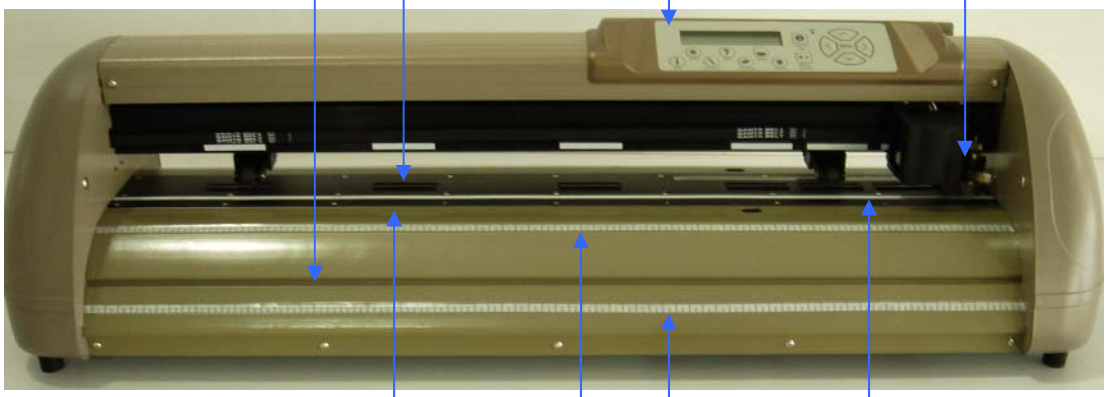
1.4.1 The Front View (Figure 1-1)

Grid Drums
move the media back and forth during operation.

Slicer Groove
cuts off the extra media easily along this groove.

Control Panel
14 buttons and 1 LED and 1 LCM showing messages and menus.

Tool Carriage
performs the cutting with the installed blade or pen with AAS module.



Platen
provides the surface for supporting media while cutting

Cutting Pad
provides the protection of blade when the blade is cutting.

Alignment Rulers
media can be aligned with the clear guide line marks

Figure 1-1

1.4.2 The Back View (Figure 1-2)

Pinch Rollers

hold the media during cutting.

Lever

raises or lowers the pinch rollers.

Figure 1-2

1.4.3 The Whole View (Figure 1-3)

**Stand for Puma III 60 is an optional item.

**Stand for Puma III 132S is a standard item.

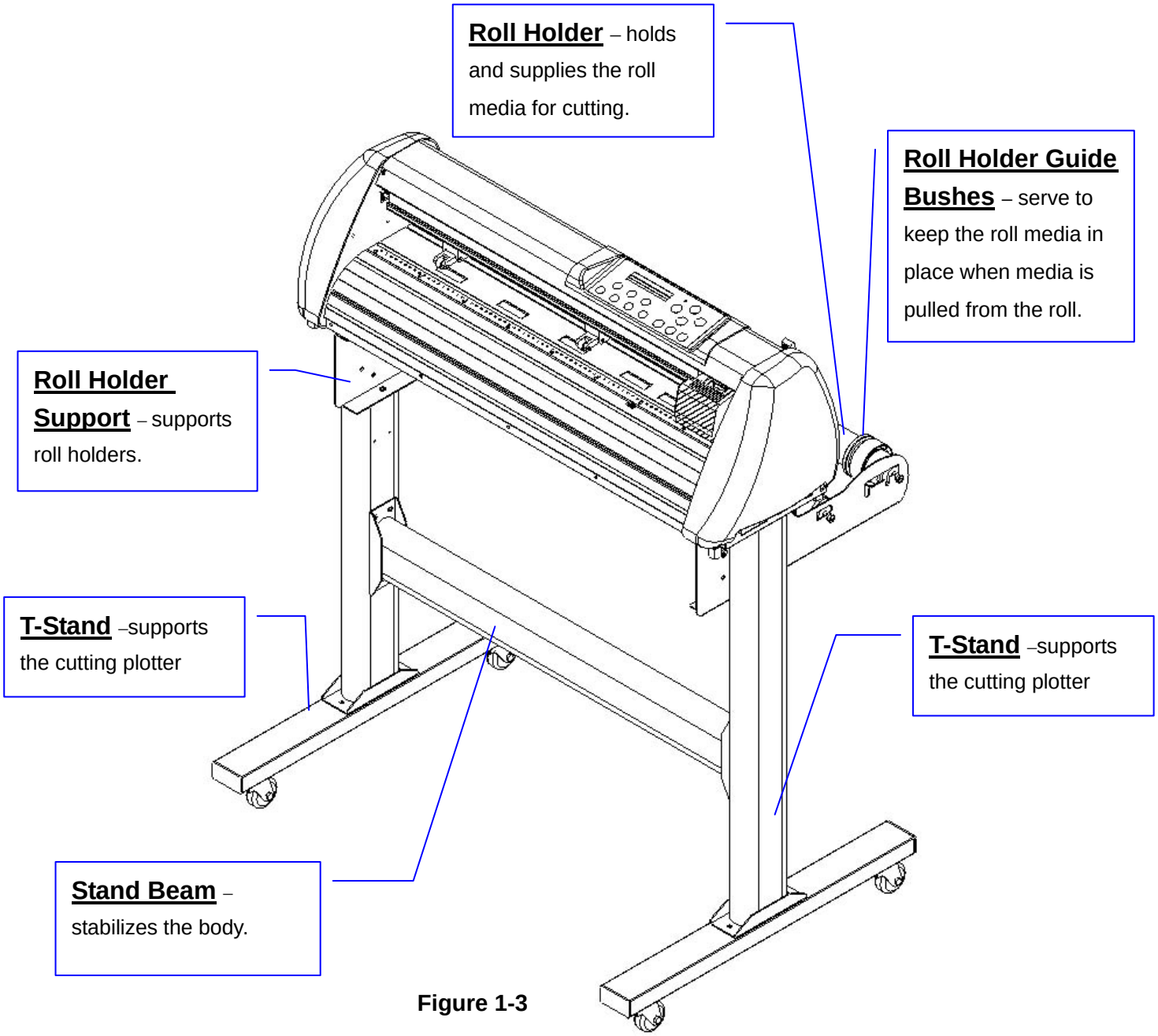

Roll Holder – holds and supplies the roll media for cutting.
Roll Holder Guide Bushes – serve to keep the roll media in place when media is pulled from the roll.
Roll Holder Support – supports roll holders.
T-Stand –supports the cutting plotter
T-Stand –supports the cutting plotter
Stand Beam – stabilizes the body.

Figure 1-3

1.4.4 The Left-hand Side (Figure 1-4)

Power Switch – On when switches to [I]; Off to [O]

Fuse – 3 Amp.

AC Power Connector

Figure 1-4

1.4.5 The Right-hand Side of Puma III (Figure 1-5)

Serial Interface Connector (RS232C)
used to connect the cutting plotter to a computer through a serial interface cable.

Parallel Interface Connector
used to connect the cutting plotter to a computer through a parallel interface cable

USB Connector
used to connect the cutting plotter to a computer through a USB cable.

Figure 1-5

Chapter 2 Installation

2.1 Precaution

Notice 1

- Carefully handle the cutter to prevent any injuries.
- Make sure the power switch is off before installing the cutting plotter.

Notice 2 A proper place for installation the cutting plotter

Please select a proper location that meets the following conditions.

- The machine can be approached easily from any direction.
- Keep at least 60 cm space in front and behind the machine.
- Make sure the cutter is placed on a flat, level and sturdy surface
- The operation temperature should be between ***15 and 30℃ (60-86°F)*** in the workshop.
- Keep the relative humidity between **25% *and 75%*** in the workshop.
- Protecting the machine from dust and air current.
- Preventing the machine from direct sunlight.

Notice 3 Connecting the Power Supply

Check the plug of the power cord to see if it matches the wall outlet. If not, please contact your dealer.

- Insert the plug (male) into a grounded power outlet.
- Insert the other end (female) of power cord into the AC connector of cutting plotter.

2.2 Stand & Flexible Media Support System

2.2.1 Stand Installation(for P3-132)

Please follow procedure below to assemble stand and media support system.

Step 1 Please examine supplied items in the accessory box of stand carton before you install:

Stand is a optional item for Puma III-60, Item List：

- 2 piece of T-shape stand
- 1 piece of stand beam
- 18 pieces of M6 screws
- 1 piece of M5 L-shape hexagon screw driver
- 1 piece of Installation Guide for Stand Set

Step 2

- Remove the plotter body and the accessories from the shipped carton.
- Place the stand beam upright on the T-stand and follow the number ❶❷ to assemble.

(See Figure 2-1 & 2-2)

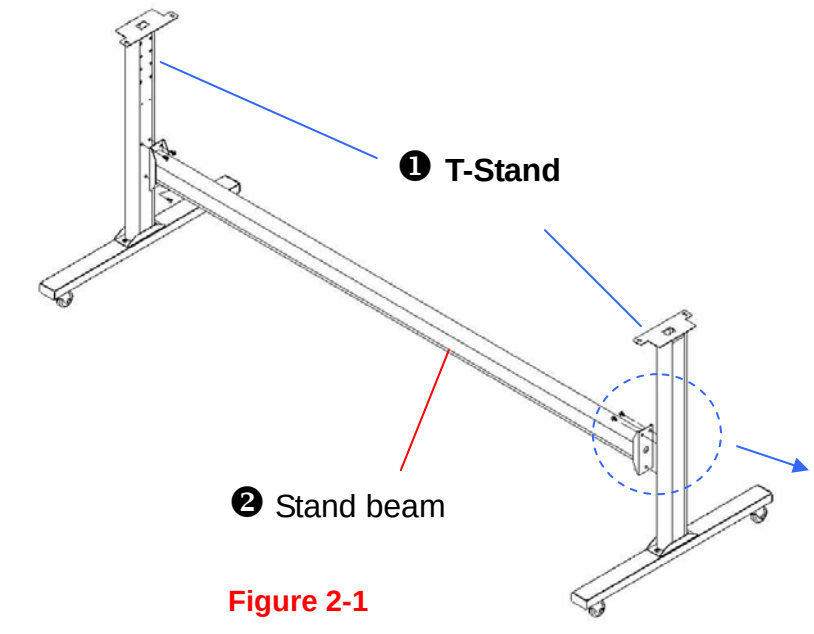


Figure 2-1

Figure 2-2

Step 3

Position the stand beam perpendicularly to part ❶and put the screws into the holes and tighten them as Figure 2-2. Then the complete picture of stand will be like Figure 2-1.

Step 4

Remove the cutting plotter from the carton. Position your stand under the plotter, and then insert the screws into the holes on plotter's bottom and tighten them up as shown in Figure 2-3.

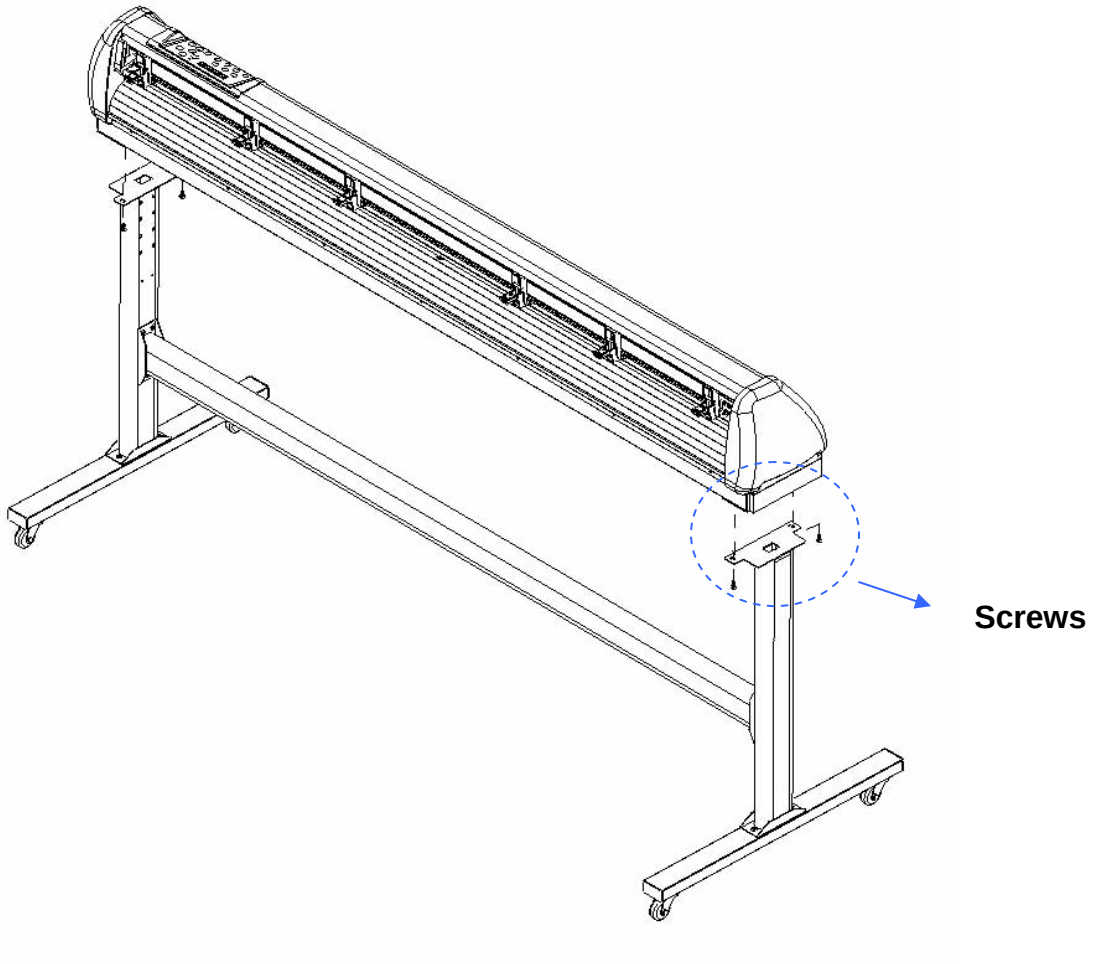
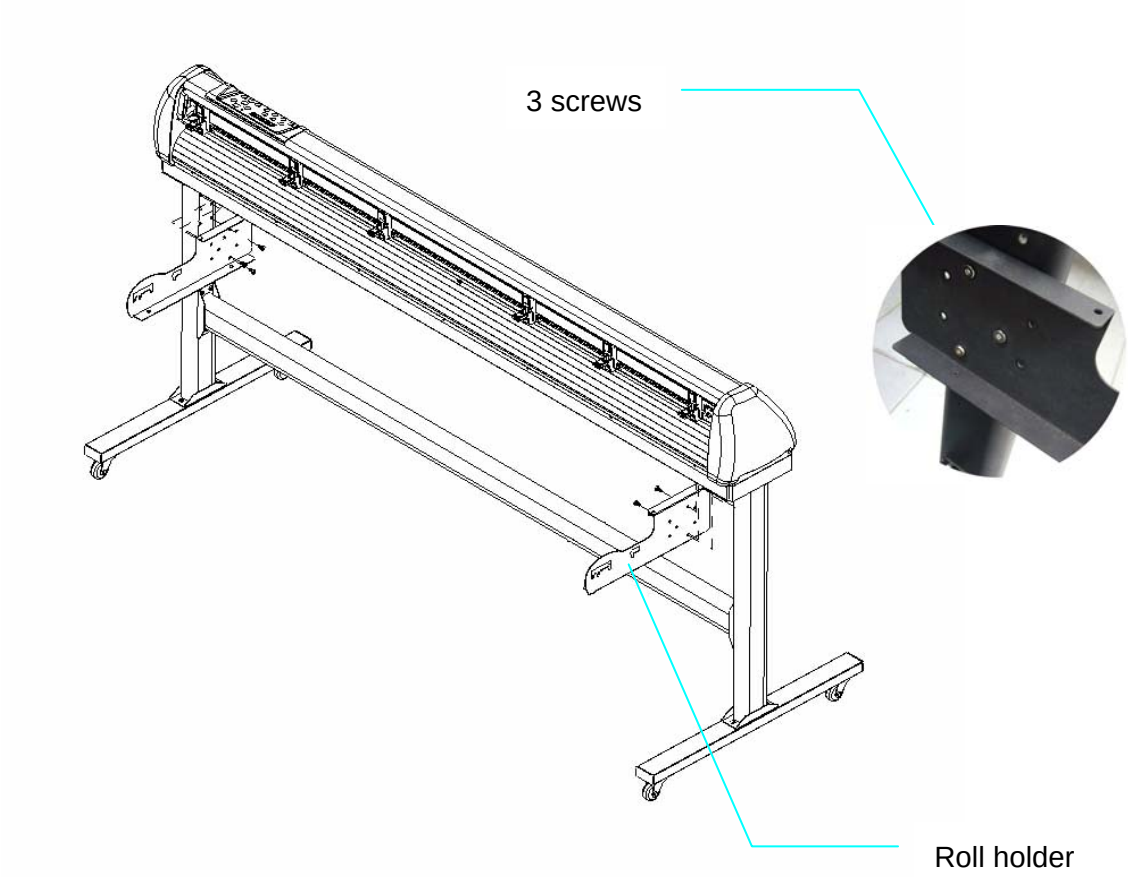


Figure 2-3

Step 5

Insert the roll holder support with the screws into the holes of the stand, and then tighten them up as shown in Figure 2-4. You could decide roll holder support's position by inserting into different holes.



Step 6

Place two roll holders into the holes in the roll holder support. (Figure 2-5)

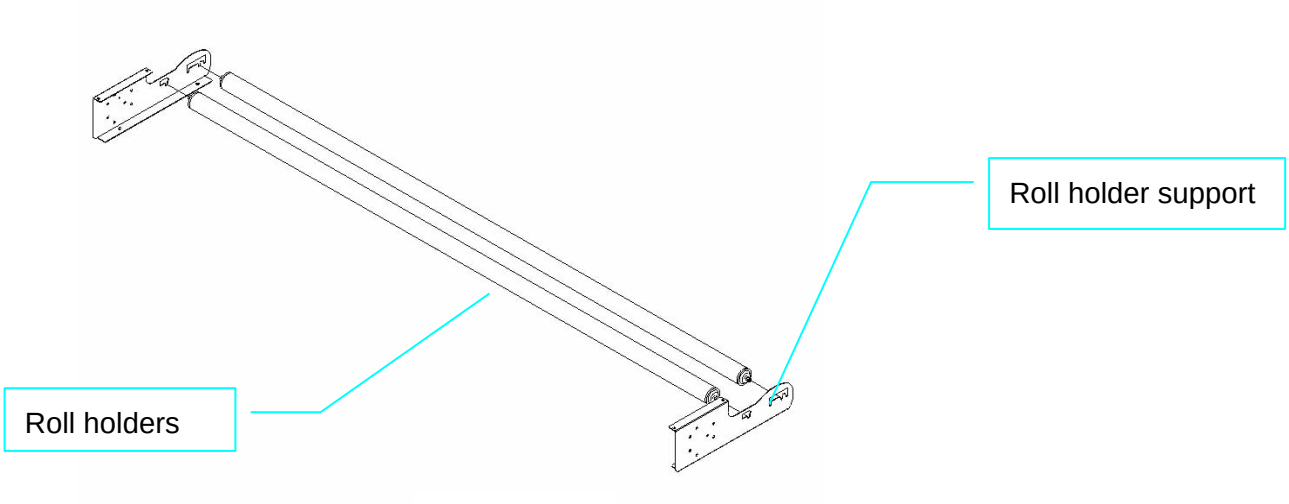


Figure 2-5

Step 7

Lastly, the complete picture will be shown like below. (Figure 2-6)

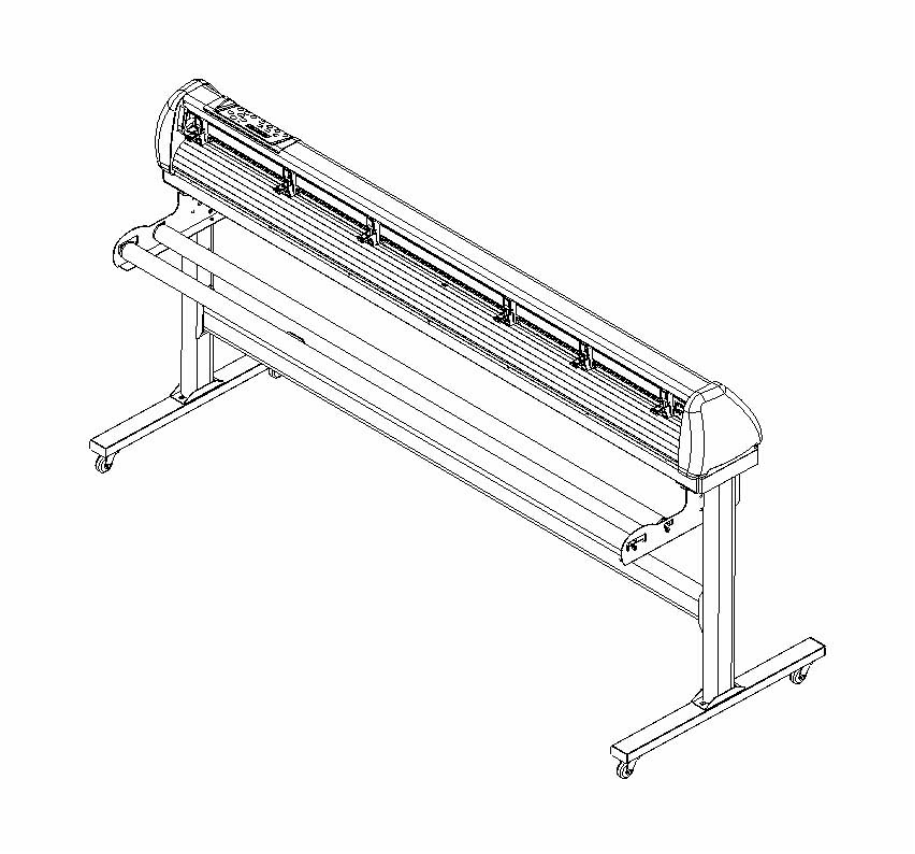


Figure 2-6

2.3 Blade Installation

! Caution

Do not touch the tip of the blade by your fingers.

! Notice

The blade is a consumable item, which will affect the cutting quality significantly. Please replace with a new blade when having the following situations:

1. The tip of blade is broken.
2. The cutting traces are not as good as they were.
3. Uncut area remains the same even the blade force has been raised significantly.

Figure 2-11 is the picture of the blade holder. Insert a blade into the bottom of the blade holder. Pushing the pin on the top of blade holder can remove the blade. Be sure to keep your fingers away from the blade tip.

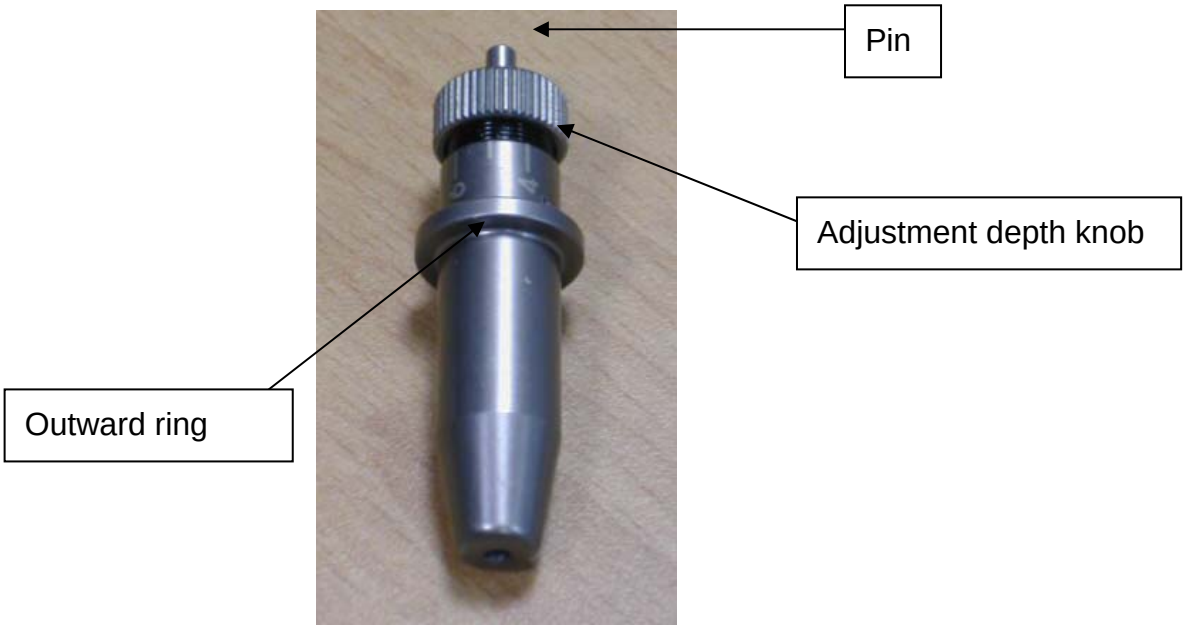


Figure 2-11

1. Install Blade. (Figure 2-12)

Figure 2-12

2. Push the blade to the bottom of the blade holder. (Figure 2-13)

Figure 2-13

3. Adjust the blade tip to suitable length by rotating “Blade tip adjustment screw” clockwise or counterclockwise. (Figure 2-14)

Figure 2-14

Tips:
“The proper length” means the blade length is about 0.1mm more than film’s thickness. For example, if the thickness of film is 0.5mm, then the blade length is properly adjusted to 0.6mm and it can completely cut through the film layer without cutting though the paper backing.

4. Insert the blade holder into tool carriage. Please note the outward ring of the holder must put into the groove of carriage firmly (Figure 2-15) and lock the grip. (Figure 2-16)

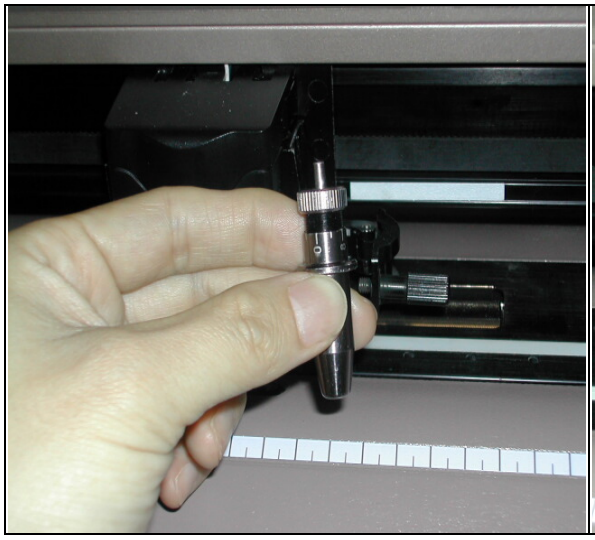


Figure 2-15

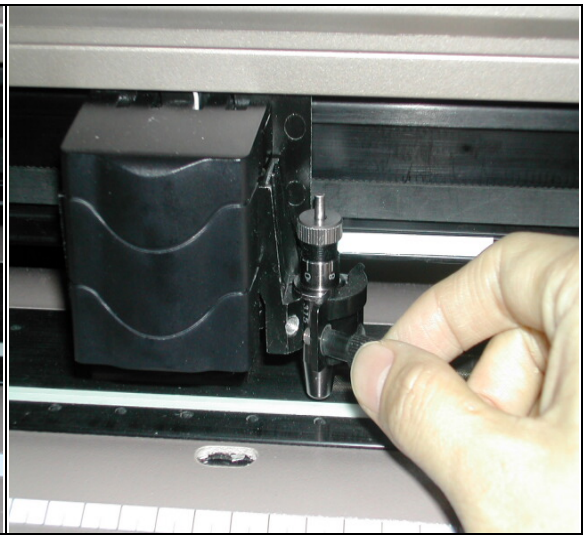


Figure 2-16

5. Reverse steps mentioned above to remove the blade holder.
6. Press the push-pin to remove the blade from the blade holder when replacing blade. (Figure 2-17)

Figure 2-17

2.4 Automatic Blade Length Adjustment

Figure 2.-18 is the new blade holder with a scale and the carriage with a mark.

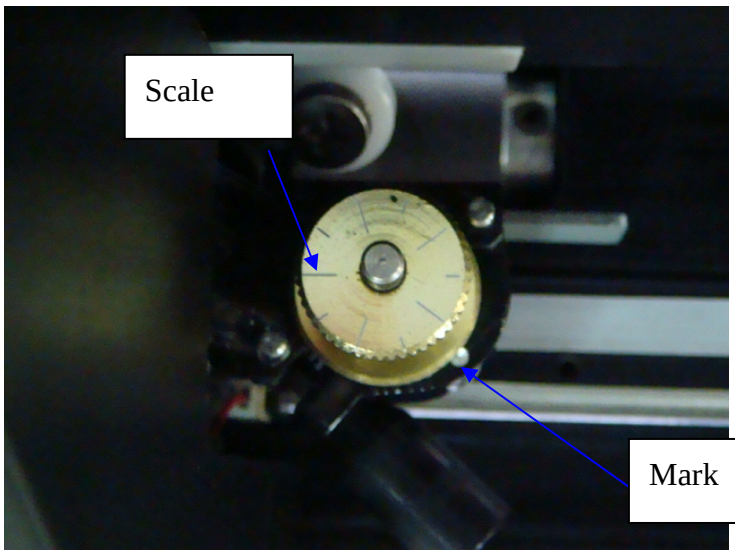


Figure 2-18

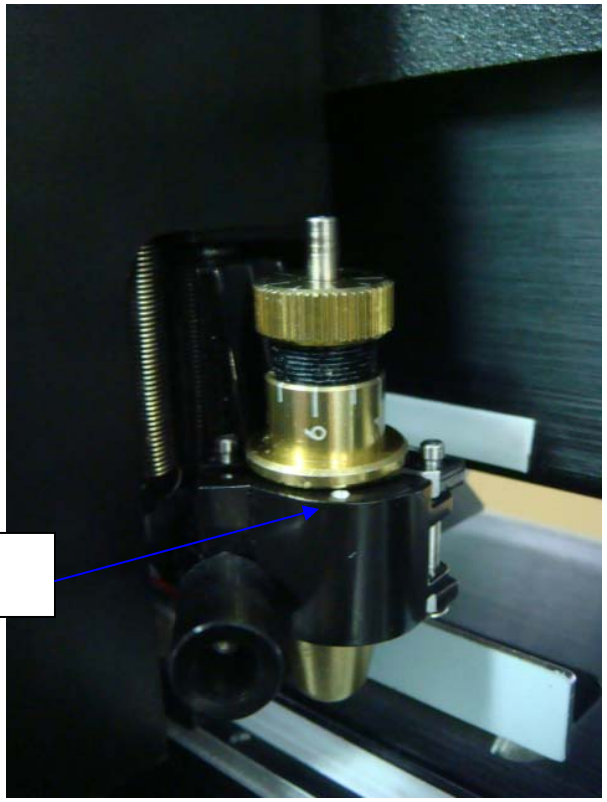


Figure 2-19

There are 10 units on the scale; each unit equals to 0.1 mm, allowing you to adjust the blade length for 0.00mm-5.00mm (Figure 2-18).

Follow the steps below to adjust the length of the blade

1. Keep your blade length as 0 before you start adjusting.
2. Align one of the scales on the blade holder to the mark on the carriage
3. Select “Blade Length Adjust” under “CUT TEST” on the LCM, enter the blade length wished in “Set Length”; test the blade holder first and then test the blade length by pressing ENTER.

Note: Keep the blade holder at the same position when you perform blade holder and blade length tests.

4. When blade holder and blade length tests are finished, the screen will show you to what degree (the unit of the value following “CW” or “CCW” is “circle”) and in which direction [CW (clockwise) or CCW (counterclockwise)] you should turn the adjustment knob.
   EG, Turn CW 0.5 is telling you that you should turn the knob for half a circle clock-wisely (Figure 2-20, Figure 2-21).

The value on the screen will be 0.0 when the blade length is perfect and no more adjustment needs to be made. You may start cutting at this point.

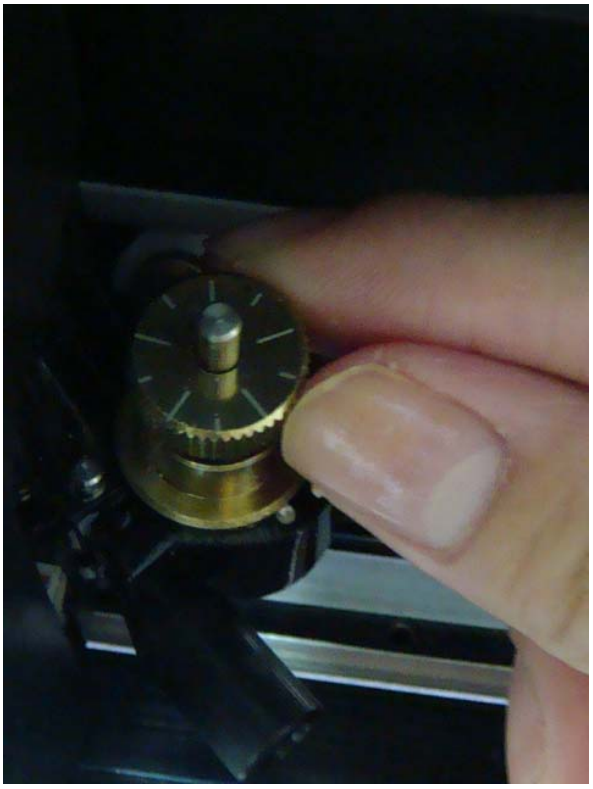


Figure 2-20

Figure 2-21

2.5 Cable Connections

Puma III communicates with a computer through **USB (Universal Serial Bus), Parallel port (Centronics) or Serial port (RS-232C)**. This chapter shows you how to connect the cutting plotter to a host computer and how to set up the computer/cutting plotter interconnection.

!! **Notice:** When USB connection is enabled, both parallel port and serial port will be disabled automatically.

Figure 2-22

2.5.1 USB Interface

Puma III build-in USB interface is based on the Universal Serial Bus Specifications Revision 1.1. USB is not available in Windows 95, Windows NT.

- USB driver installation

Caution!!

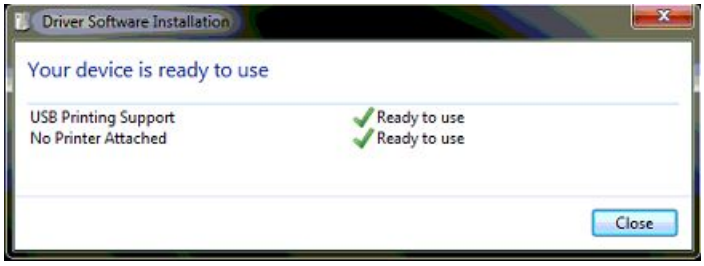
✓ **If you are using Windows 2000 / XP / Vista / 7 as your operating system, make sure you log in using the "Administrator" account.**

Use the USB One-click Installation for quick driver installation. Follow the simple steps below for driver setup.

Step 1:

Connecting your GCC cutter

1. Turn on the machine.
2. Connect the USB connector to the machine and then USB driver will installed automatically. It will take a few minutes to find the device. Please DO NOT disconnect the USB cable until the installation has completed.
3. You can double click the USB icon on the taskbar to make sure the USB device is detected.

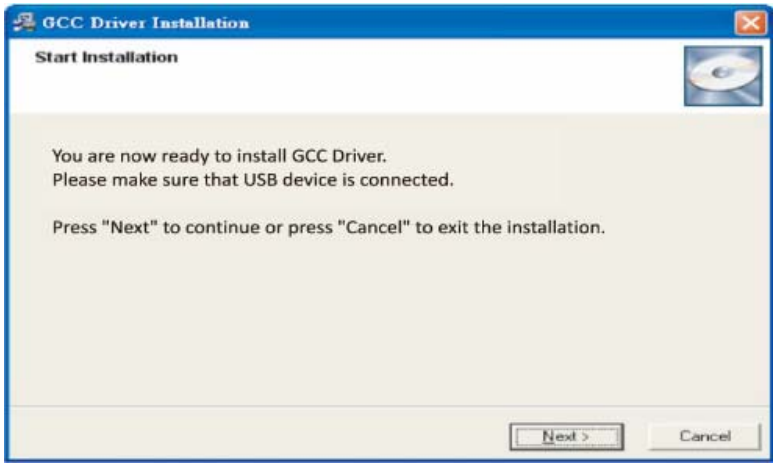


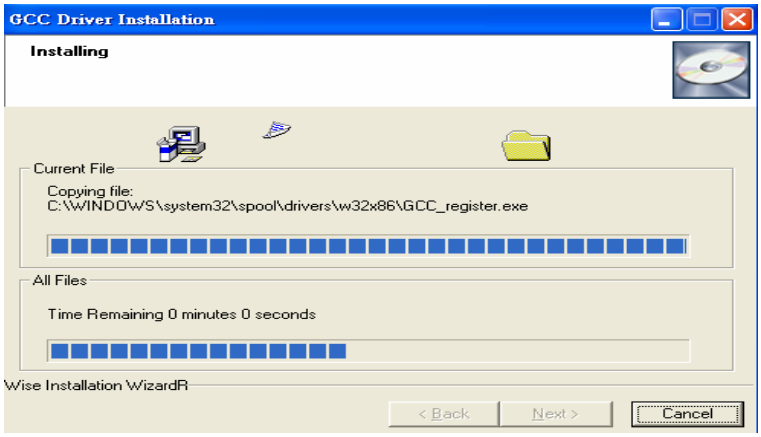
Step 2: Installing the software

(1) Put the installation CD into your CD-ROM. **Please make sure that the USB device is connected before you start the driver installation.**

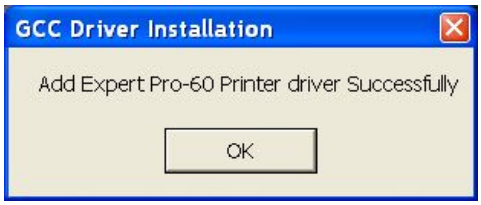
(2) Choose the model you want to install from the driver list and click on either the 32 bit or 64 bit driver installation depending on the operating system installed on your computer to start the installation. (The Expert Pro model is used as an illustration in the following steps.)

(3) Click “Next” to start the driver installation.


GCC Driver Installation
Start Installation
You are now ready to install GCC Driver.
Please make sure that USB device is connected.
Press "Next" to continue or press "Cancel" to exit the installation.
Next >
Cancel



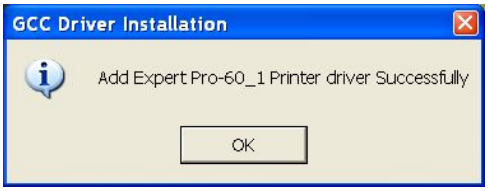
(4) The installation will take a few minutes to complete and you will see a message below and click on “OK” upon completion. Enjoy your GCC cutter!



Note:

(1) If the driver is being installed for a second time, the user will be prompted as to whether a second copy of the driver installation is required.

(2) If the user selects yes, a second copy of the driver will be installed.



2.5.2 Parallel Interface

- Connecting to the Parallel (Centronics) Port

1. Connect a parallel cable to the cutting plotter and the host computer
2. Set up the output port **LPT1** or **LPT2** from your software package
3. Send the data to your cutting plotter directly. Or, use DOS commands like **TYPE** or **PRINT** to output data.

Caution!! Please turn off the plotter before plugging the print cable.

2.4.3 RS-232 Interface

■ Connecting to the RS-232 (Serial) Port

1. For Personal Computer users, connect the RS-232C cable to the serial connector of the assigned serial port (COM1 or COM2) on your host computer.

2. Set up the communication parameters (Baud Rate and Data Bits/Parity) to match the setting of software package, refer to chapter 3 – “MISC” key description.

Caution!! Please turn off the plotter before plugging the RS-232C cable.

2.4.4 Data Transmitting

There are two options to transmit the data from the computer to the cutting plotter:

Option 1

With proper interface settings, the data can be transmitted from your application software package to the cutting plotters directly.

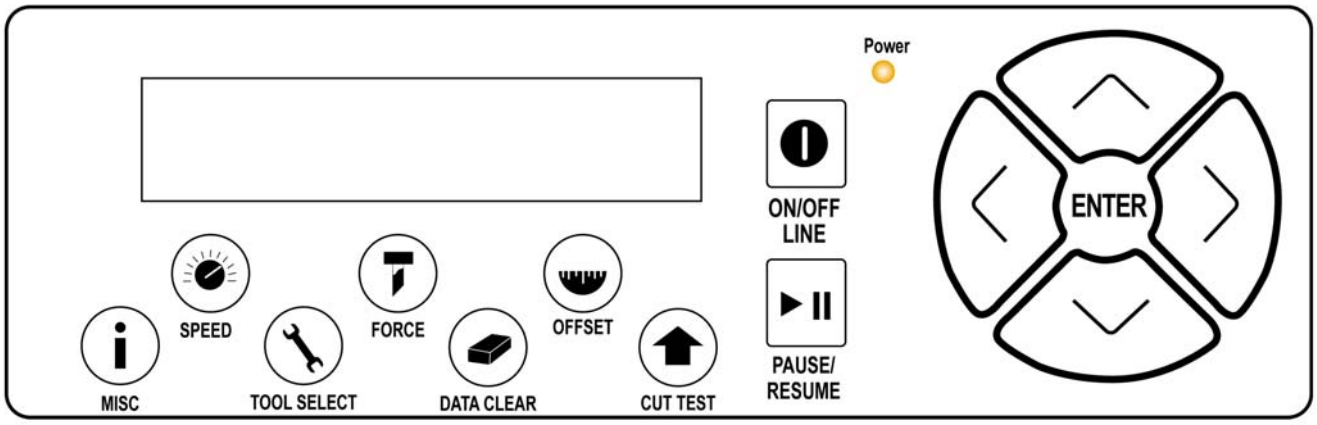
Option 2

Most cutting software packages are able to emulate **HP-GL** or **HP-GL/2** commands. As long as the file is **HP-GL** or **HP-GL/2** format, the cutting plotter can output the data precisely.

Chapter 3 The Control Panel

This chapter describes the button operations with the LCM menu flowcharts of Puma III. When the cutting plotter is ready for use as described in Chapter 1 & 2, all functions are under default parameters.

3.1 The LCD Panel



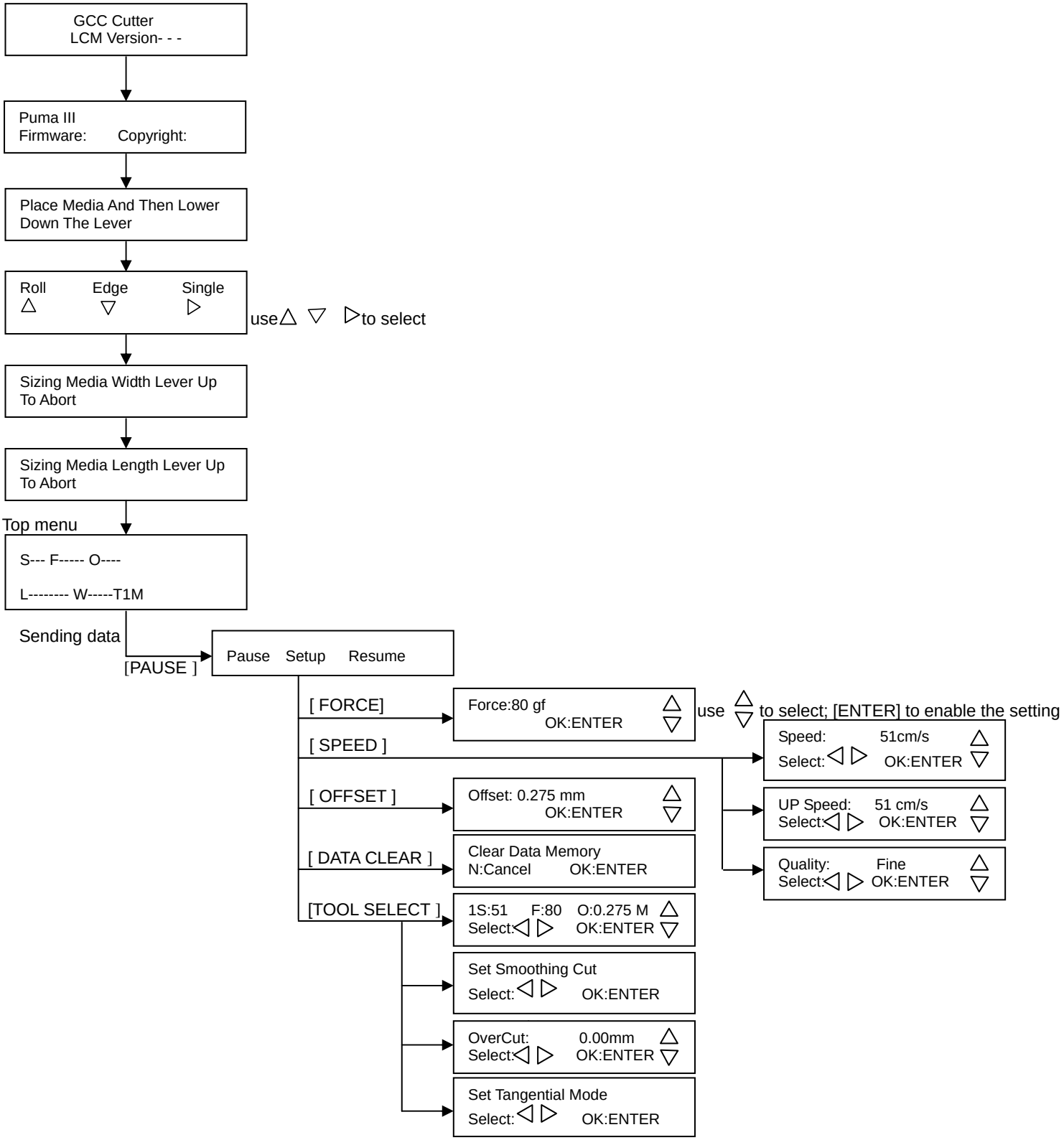
< LCD Control Panel on Puma III series >

Key	Function
LCD Screen	To display functions and error messages.
Power LED	To indicate the power status (light up: power on; light off: power off)
4 Arrow Keys	To move position, select function, or change setting.
ENTER	To set item or register the immediately preceding input value.
PAUSE/RESUME	To temporarily halt cutting process or to continue
ON/OFF LINE	To switch modes, stop cutting job, or abort changes of settings.
OFFSET	To adjust the value of blade's offset.
FORCE	To adjust the value of cutting force.
SPEED	To adjust the value of cutting speed and quality.
CUT TEST	To perform cutting tests in different ways.
DATA CLEAR	To clear up buffer memory.
TOOL SELECT	To select tools.
MISC	To set up functions.

Please see details in "3.4 Menu Items"

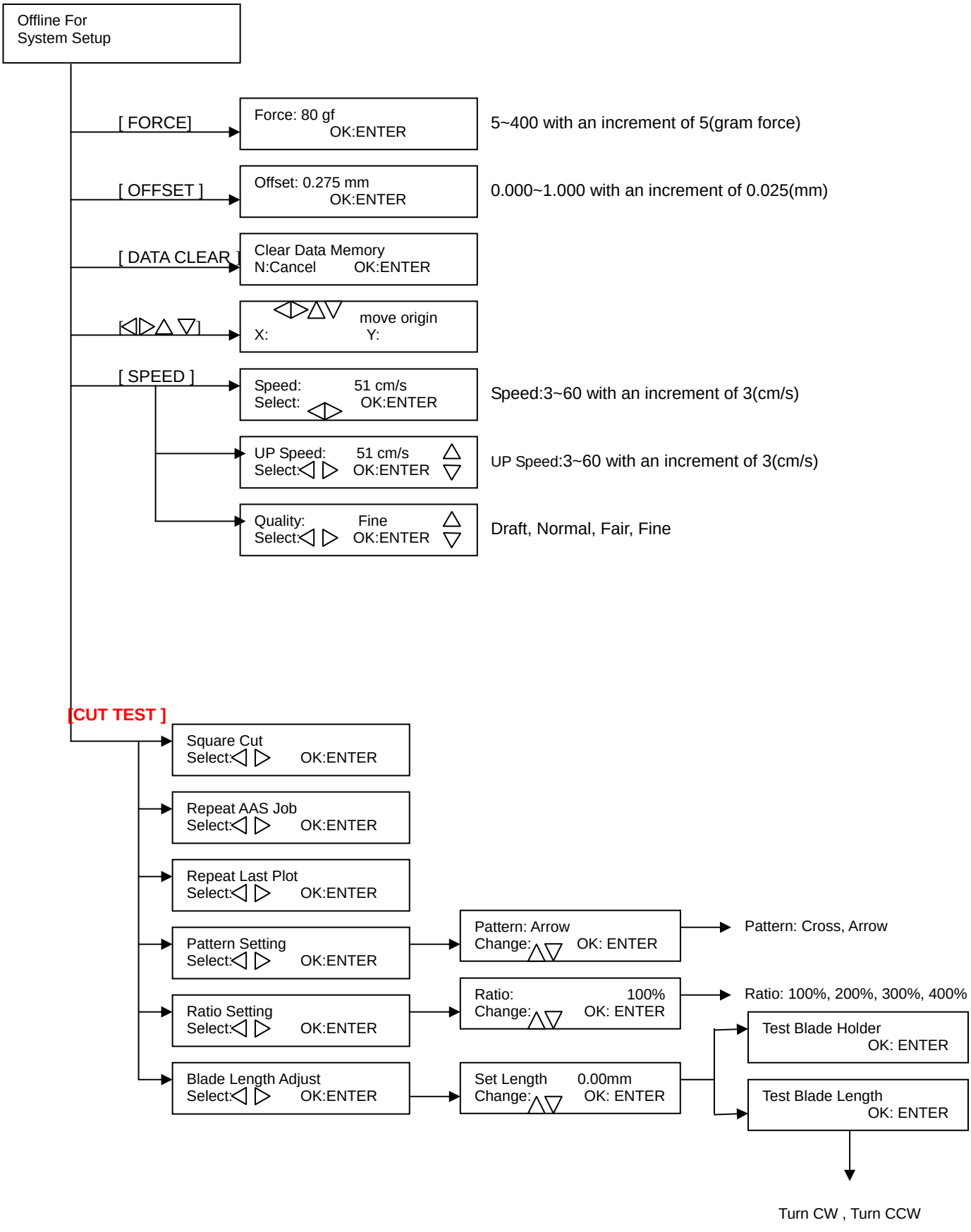
3.2 Menu in On-line Mode

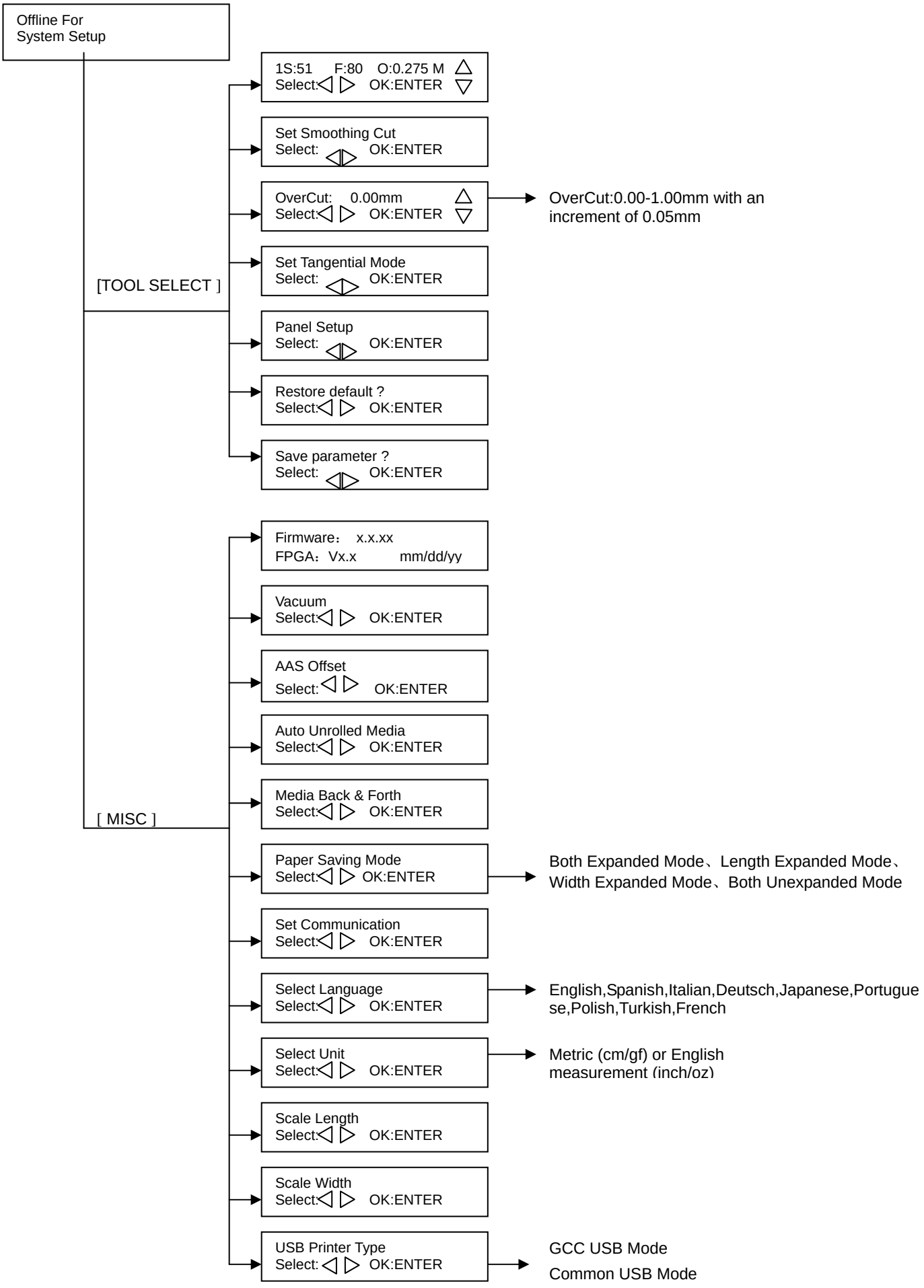
Power On Puma III in processing



3.3 Menu in Off-line Mode

Press [ON/OFF LINE] to switch to the offline mode




Offline For
System Setup
[TOOL SELECT]
[MISC]
1S:51 F:80 O:0.275 M
Select: OK:ENTER
Set Smoothing Cut
Select: OK:ENTER
OverCut: 0.00mm
Select: OK:ENTER
OverCut:0.00-1.00mm with an increment of 0.05mm
Set Tangential Mode
Select: OK:ENTER
Panel Setup
Select: OK:ENTER
Restore default ?
Select: OK:ENTER
Save parameter ?
Select: OK:ENTER
Firmware： x.x.xx
FPGA：Vx.x mm/dd/yy
Vacuum
Select: OK:ENTER
AAS Offset
Select: OK:ENTER
Auto Unrolled Media
Select: OK:ENTER
Media Back & Forth
Select: OK:ENTER
Paper Saving Mode
Select: OK:ENTER
Both Expanded Mode、Length Expanded Mode、Width Expanded Mode、Both Unexpanded Mode
Set Communication
Select: OK:ENTER
Select Language
Select: OK:ENTER
English,Spanish,Italian,Deutsch,Japanese,Portuguese,Polish,Turkish,French
Select Unit
Select: OK:ENTER
Metric (cm/gf) or English measurement (inch/oz)
Scale Length
Select: OK:ENTER
Scale Width
Select: OK:ENTER
USB Printer Type
Select: OK:ENTER
GCC USB Mode
Common USB Mode

3.4 Menu Items

Below describes the functions of menu items

Menu or Key	Function	Setting	Default
--- Media sizing ---			
Roll	To measure media width.	Maximum Tracking 150 meters	
Edge	To measure media width and pull the media back till the front paper sensor open.	Maximum Tracking 150 meters	
Single	To measure media width and length.	Maximum Tracking 10 meters	
--- POWER ---			
	To indicate the power status.		
[Arrow Keys]			
	1. To move the tool carriage position on X or Y axis. 2. To select functions or change values of settings.		
[ENTER]			
	1. The displayed parameters will be saved automatically. 2. To set a new origin at the present tool carriage position. In “offline” mode, moving the tool carriage to desired position by [Arrow Keys], then press [ENTER] key to set a new origin. While moving with the parameters of XY-axes displayed, press [MISC] key will enable fine-tune movement; press [MISC] key again to disable the function.		
[PAUSE/RESUME]			
	To temporarily halt the cutting process. To resume the process by press [Pause/Resume] key again.		
[ONLINE/OFFLINE]			
	1. To switch between online mode and offline mode. 2. To stop the cutting job or abort the change of setting. Once press this key, the cutting job will be terminated immediately and cannot be resumed.		
[OFFSET]			
	To set or modify the distance between the blade tip and the center axis.	0.000~1.000mm	0.275mm
[FORCE]			
	To set or modify the value of tool force.	5~400gram; 5 gram/per step	80 gram
[SPEED]			
Speed	To set or modify tool speed at horizontal moving.	3~60cm/sec; 3cm/sec per step	51cm/sec
Up Speed	To set or modify tool speed at vertical moving.	3~60cm/sec; 3cm/sec per step	51cm/sec
Cutting Quality	To set or modify cutting quality. [Slower speeds / higher quality - Faster speeds / lower quality] The Set Cutting Quality Page allows you to adjust and balance vector mode’s quality and speed settings based on your specific job. Draft Mode offers the highest output speed, sacrificing quality. Whereas Quality Mode offers the highest quality, sacrificing output speed. Keep in mind that speed and quality are usually at a tradeoff.	Draft, Normal, Fair, Fine	Normal
[CUT TEST]			

Square Cut	To perform a cutting test at present blade position. For more information, please refer to “4.3 Adjusting the Cutting Force and Offset” to adjust blade force and cutting speed.		
Repeat AAS Job	To repeat AAS jobs automatically without having to operate on the computer side. Please be noted that this feature is mainly applied to the Single paper mode; please ensure a new piece of material you wish to apply this feature on is loaded and the origin repositioned to the first registration mark before starting. When the first AAS job repeat completes, the user will be offered the choice of “Repeat AAS Job Again”, please press ”Online/Offline” to return to the main menu.		
Repeat Last Plot	Recut: To repeat the last job without re-sending the data.	1~99; 1 per step	
	Copy: To copy the last job without re-sending the data. * 1mm gap will be auto-generated between 2 copies). * If the media length is not enough to continue, it will show below message on LCM: `Out Of Space; # of Copies finished` If both functions are enabled at the same time, the cutter will perform the last setting only.	1~99; 1 per step	
Pattern Setting	To provide two patterns for cut test Note: It is recommended to select “Cross” if you are working on thick pieces of materials.	“Arrow” and “Cross” patterns	“Arrow”
Ratio Setting	To adjust the size of the pattern	100%, 200%, 300%, 400%	100%
Blade Length Adjust	To adjust the length of the blade Note: 1. Keep your blade length as 0 before you start adjusting. 2. Test the blade holder first and then test the blade length by pressing ENTER. 3. Keep the blade holder at the same position when you perform blade holder and blade length tests. 4. When blade holder and blade length tests are finished, the screen will show you to what degree (the unit of the value following “CW” or “CCW” is “circle”) and in which direction [CW (clockwise) or CCW (counterclockwise)] you should turn the adjustment knob. EG, Turn CW 0.5 is telling you that you should turn the knob for half a circle clockwisely. 5. The value on the screen will be 0.0 when the blade length is perfect and no more adjustment needs to be made. You may start cutting at this point.	0.00mm-5.00mm	0.00mm
[DATA CLEAR]			
	To clear up buffer memory.		
[TOOL SELECT]			
Set Smoothing Cut	To enable smooth-cutting function.		Enable
Over Cut	To generate an overcut to facilitate weeding.	0.00mm-1.00mm 0.05mm/per step	0.00mm

Set Tangential Mode	To enable the emulated tangential-cutting mode for thicker media types and small letter cuts. Note: while the Offset value setting at 0.000 mm, “Set Tangential Mode” will automatically be disabled.		Disable
Panel Setup	Accept setup command: To accept commands of the Force, Speed, Cutting Quality, and Offset only via software.		
	Control panel only: To accept commands of the Force, Speed, Cutting Quality, and Offset only via control panel of the cutter.		
Restore Default	To turn all parameters of the menu items to factory-default settings.		
Save Parameter	To save pattern(s) of cutting parameters for later use.		
[MISC]			
Auto Unrolled Media	To avoid paper jam and motor crash by automatically unroll media (50cm and up) before cutting while enabled. . * Auto-unroll only effects on roll/edge media. * Using Single mode to size media will disable this function automatically. * If the length of the rolled media is less than 2 meters or the weight is light, it is recommended to set this mode disabled.		Disable
Vacuum	To help improve tracking and cutting accuracy by turning on the fans. If you turn off the vacuum system, the fans will remain inactive during cutting or plotting.		Enable
AAS Offset	To set or modify AAS offset value. You can refer to “5.3 Printer Test” for more details.		
Media Back & Forth	To enable to save time on repeated cutting jobs and better tracking. After cutting job has finished, the media will move back to the origin, then move to the end of the plot.		Disable
Paper Saving Mode	To save media by four different modes: 1. Length expanded mode 2. Width expanded mode 3. Both expanded mode 4. Both unexpanded mode		Both unexpanded mode
Set Communication	To build up the communication between host computer and cutter. *Baud Rate* is to determine the speed of data transmission. *Data Bits* refers to the size of one block of data. *Parity* is used to check if data was revived correctly or not. 9600, n, 7, 1, p 9600pbs, 7 Bits with NO Parity 9600, o, 7, 1, p 9600pbs, 7 Bits with ODD Parity 9600, e, 7, 1, p 9600pbs, 7 Bits with EVEN Parity 9600, n, 8, 1, p 9600pbs, 8 Bits with NO Parity 9600, o, 8, 1, p 9600pbs, 8 Bits with ODD Parity 9600, e, 8, 1, p 9600pbs, 8 Bits with EVEN Parity 19200, n, 7, 1, p 19200pbs, 7 Bits with NO Parity 19200, o, 7, 1, p 19200pbs, 7 Bits with ODD Parity 19200, e, 7, 1, p 19200pbs, 7 Bits with EVEN Parity 19200, n, 8, 1, p 19200pbs, 8 Bits with NO Parity 19200, o, 8, 1, p 19200pbs, 8 Bits with ODD Parity 19200, e, 8, 1, p 19200pbs, 8 Bits with EVEN Parity		
Firmware Version	To display the version number of Firmware and FPGA code.		

Select Language	To select displayed languages on LCM panel in English, Spanish, Italian, Deutsch, Japanese, Portuguese, Polish, Turkish or French.		English
Select Units	Provide two-unit systems for users convenient.	cm/gram; inch/oz	Metric
Scale Length Scale Width	To adjust the scale of media length and width that may cause by the thickness of the media. The Denominator is the actual length, and the Numerator is the ideal length measured from the resultant. For example, cutting a line with 500.0 mm length. The procedure as follows: 1. Press the [LEFT ARROW] to choose the Numerator and select 500.0 mm, 2. Cut the length by sending a graph file, 3. Measure the length then use the [RIGHT ARROW] key to choose the Denominator, then 4. Press [UP ARROW /DOWN ARROW] to change the values of the actual length.		
USB Printer Type	To select USB Mode from the LCM panel. Two USB modes are available: GCC USB Mode and Common USB Mode. GCC USB Mode: For 32 bit driver [Windows XP/2000/ 7 /Vista] Common USB Mode: Both for 32 bit & 64 bit driver [Windows XP/7/Vista]		Common USB Mode

Chapter 4 Operation

4.1 Media Loading

4.1.1 Loading the Sheet Media

To load the media properly, please follow the procedures listed below:

Pull the lever upward to raise the pinch rollers. (Figure 4-1)

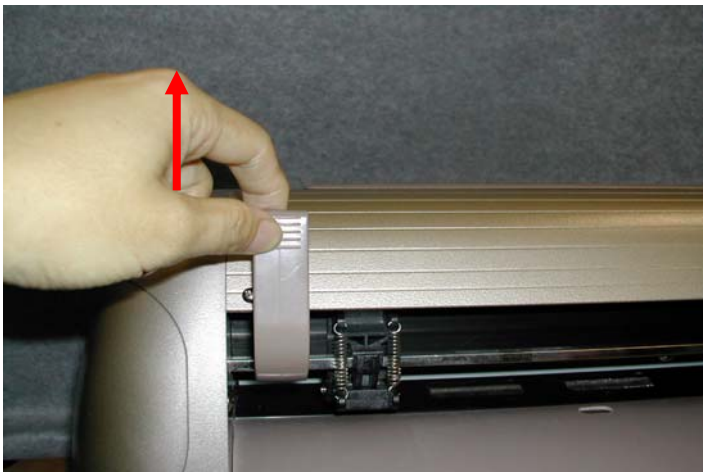


Figure 4-1

Load your media on the platen and slide it under the pinch rollers from either the front side or the backside. The **alignment rulers** on the platen extension will help you to adjust the media precisely.

> **Note:**
> Be sure that the media must be covered by the paper sensors on the platen when loading the media. At least one of the two paper sensors should be covered. Once the media covers the sensor, the cutting plotter will size width and length of media automatically.

Then move the pinch rollers manually to the proper position. Be sure the pinch rollers must be positioned above the grid drum. The **white marks** on top trail will help you position pinch rollers when media on the platen. (Figure 4-2)

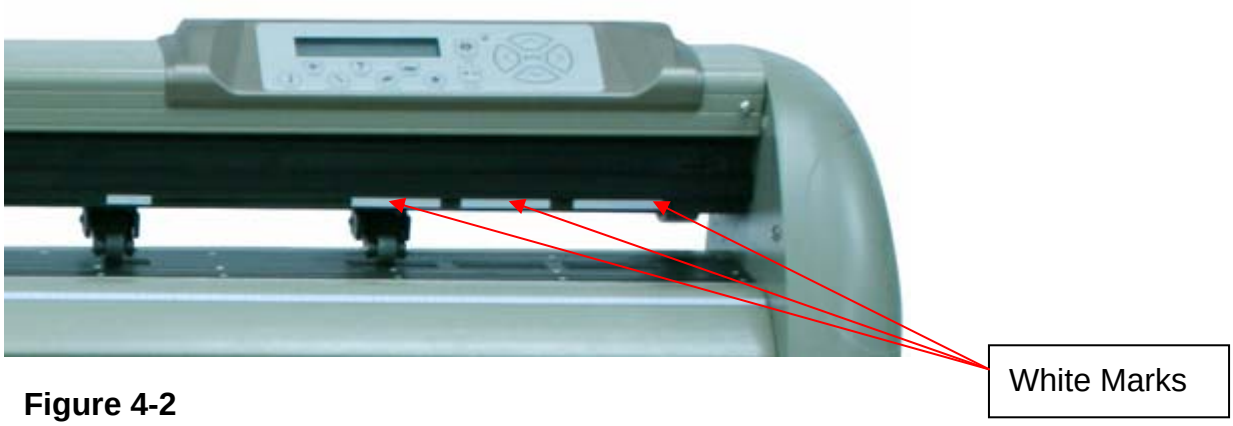


Figure 4-2

Push the lever downward to lower down the pinch rollers.

Turn on the power; the machine will be initialized. Then follow the instruction of LCM to measure the size of the media.

Note:
Move the pinch roller by applying force at the rear portion of the pinch roller support. Do not move it by holding its front rubber roller.

Figure 4-3 correct way to move pinch rollers

4.1.2 Loading the Roll Media

Firstly, put the roll media guide bushes on two roll holders. (Figure 4-4)

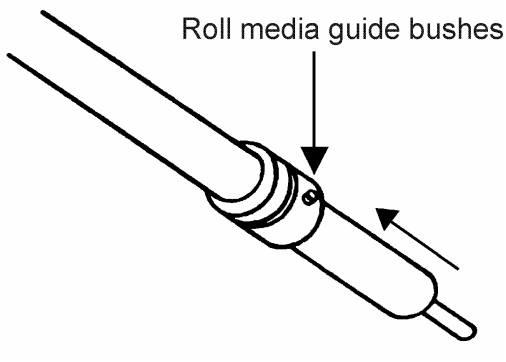


Figure 4-4

Option A

Insert the two roll holders into the roll media support set, and then place the roll media directly between the two roll holders. (Figure 4-5)

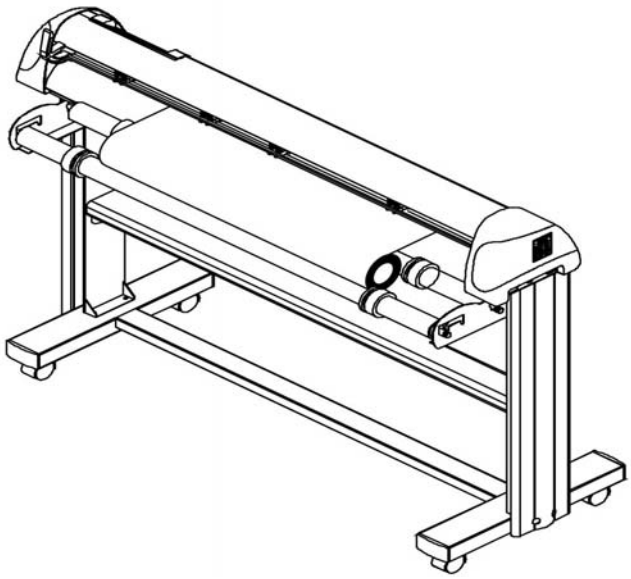


Figure 4-5

Option B (Use the media flange)

1. Insert a roll media flange at the end of each roll media and tighten the thumbscrew until the roll media is firmly gripped. (Figure 4-6)

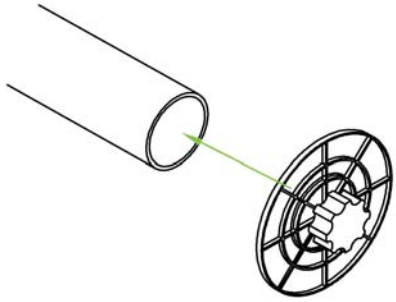


Figure 4-6

2. Then put the roll media on the roll holders. Adjust the position of the roll media ensure that the media flange is able to run in the groove of media guide bushes. (Figure 4-7)

Figure 4-7

3. Loading the media on the platen. After loading the roll media, flatten the media on the platen and hold the front edge of the roll media firmly.(Figure 4-8)

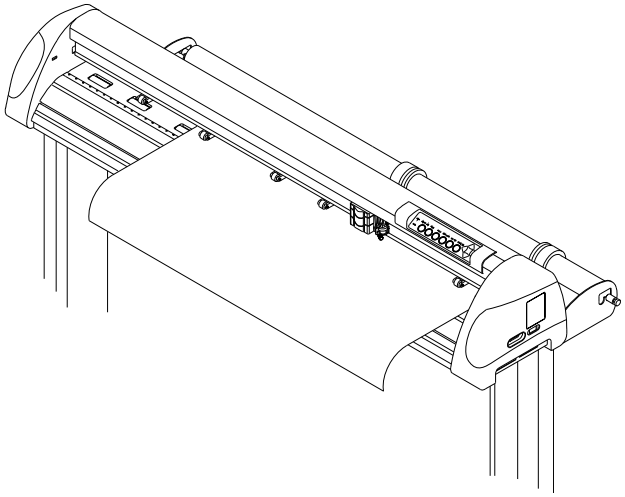


Figure 4-8

4. Then turn the roll downward to make an equal tension across the media. (Figure 4-9)

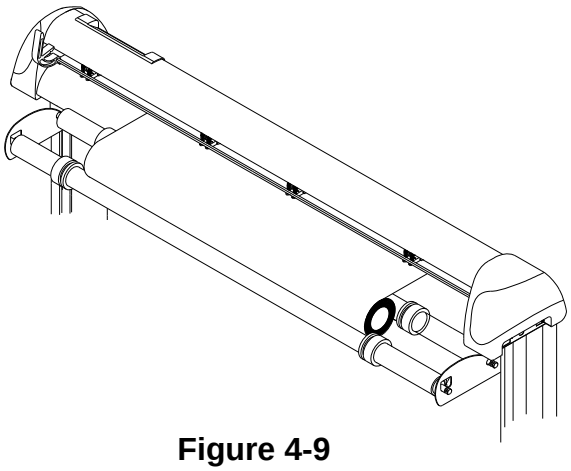


Figure 4-9

5. Move the pinch rollers to the precise location and be careful that the pinch rollers must be positioned above the grid drums.
6. Push the lever downward to lower down the pinch rollers.
7. Fixes roll media guide bushes on the roll holder to secure the roll media.
8. Turn on the power switch, and the tool carriage will size the media automatically. Then the cutting plotter is ready to work.

9. Unloading media：Reversing steps mentioned above to remove the media.

For the users of Puma III-60, you can also use the “Roll Base” (a standard accessory of Puma III-60) to feed a roll media. Please adjust the position of roll base to get a good cutting result. (Figure 4-10)

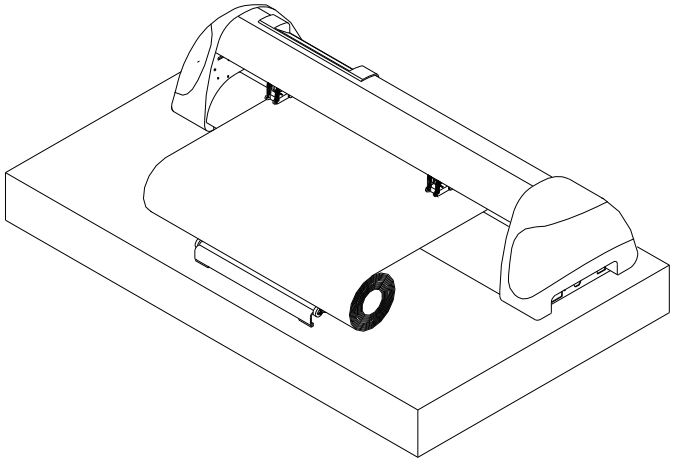


Figure 4-10

4.2 Tracking Performance

In order to achieve the best tracking performance for a long plot, please leave the margin of 0.5mm~25mm in the left and right edges of the media.(Figure 4-11)

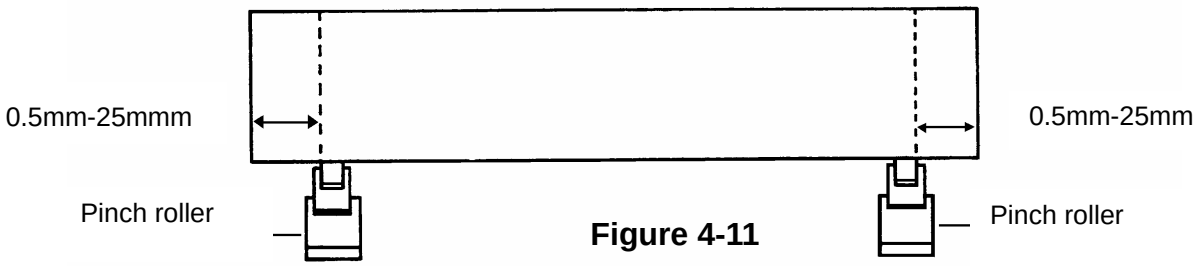


Figure 4-11

4.3 Cutting Force and Offset Adjustment

Before sending your designs from computer to Puma III for cutting, please make “Cut Test” to adjust cutting force and offset value.

The “Cut Test” should be repeated several times until the optimum settings are achieved.

Please follow procedure below to optimum the cutting force and offset settings.

Step1.
After sizing the media, press [CUT TEST] button to select the “Square Cut”, and press [ENTER KEY] to confirm.

The default cutting force and offset value of the cutting test are 80gf and 0.275mm respectively.

Step2.
Press [ARROW KEY] to move the tool carriage to the position where you would like to cut. Then, press the [ENTER KEY] to make a “Cut Test”.

Note: At the same time, the new origin is also set at the cut test position.

Step3.
When the “Cut Test” is completed, a pattern appears (please refer to Figure 4-12). Peel off the pattern to see if it can be easily separated from the media base. If the output result is good, the cutting force is set appropriately. If not or it cut through the back paper of media, press [FORCE KEY] to adjust the tool force until an optimum force is obtained.

Step4.
If the pattern appears to be BB or CC layout (see Figure 4-12), press [OFFSET KEY] to adjust the offset value until AA pattern is shown.

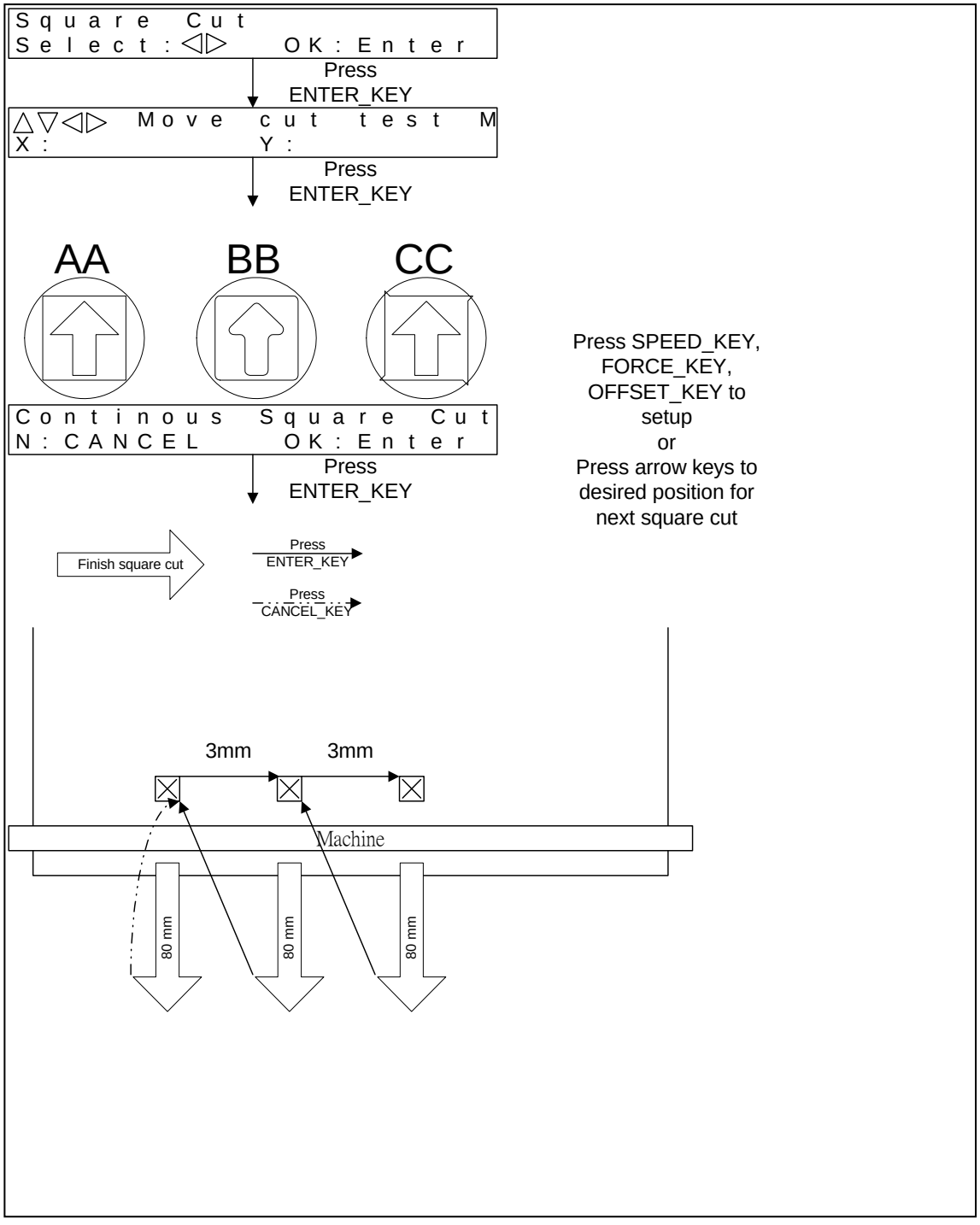

Square Cut
Select : ◁▷ OK : Enter
Press
ENTER_KEY
△▽◁▷ Move cut test M
X : Y :
Press
ENTER_KEY
AA
BB
CC
Continous Square Cut
N : CANCEL OK : Enter
Press
ENTER_KEY
Press SPEED_KEY,
FORCE_KEY,
OFFSET_KEY to
setup
or
Press arrow keys to
desired position for
next square cut
Finish square cut
Press
ENTER_KEY
Press
CANCEL_KEY
3mm
3mm
Machine
80 mm
80 mm
80 mm

Figure 4-12

4.4 When Completing the Cutting Job

After completing the cutting job, raise the sheet-loading lever, and then remove the material. You can also cut off the finished job by the Safe Blade (a standard accessory) along the knife guide. (Figure 4-13)

Figure 4-13

4.5 Puma III Print Driver setting

4.5.1 Puma III Print Driver setting>Option Page

Die Cut

The Die Cut function must be activated with the Kiss Cut function to avoid the falling of cut-through materials and material jam beneath the carriage. Die Cut helps you to cut through the backing of the material while Kiss Cut cuts through only the top layer but not the backing. This will leave only tiny bits of the backing attached to the top layer, creating complete individual patterns with backing sheets (see figure 1 and 2).

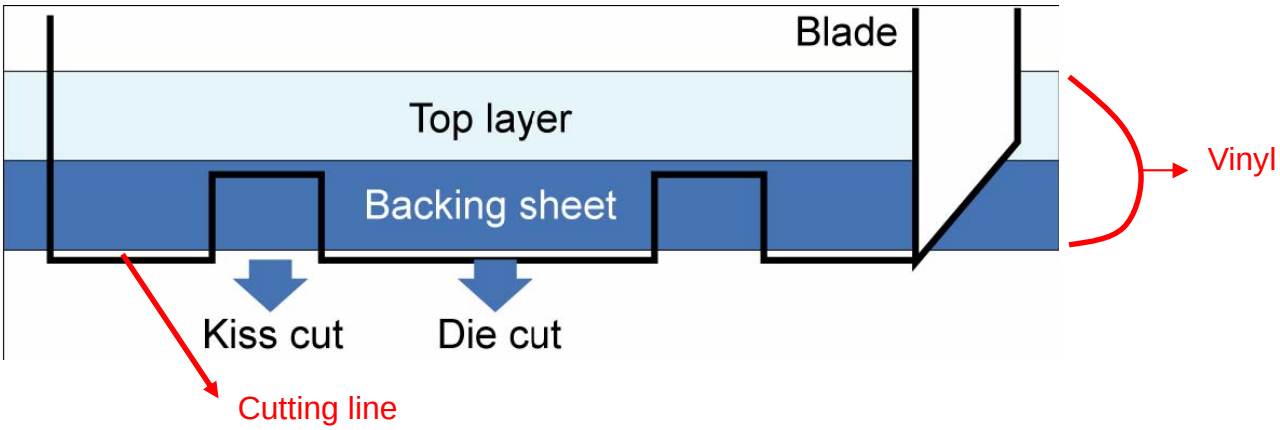


Figure 1

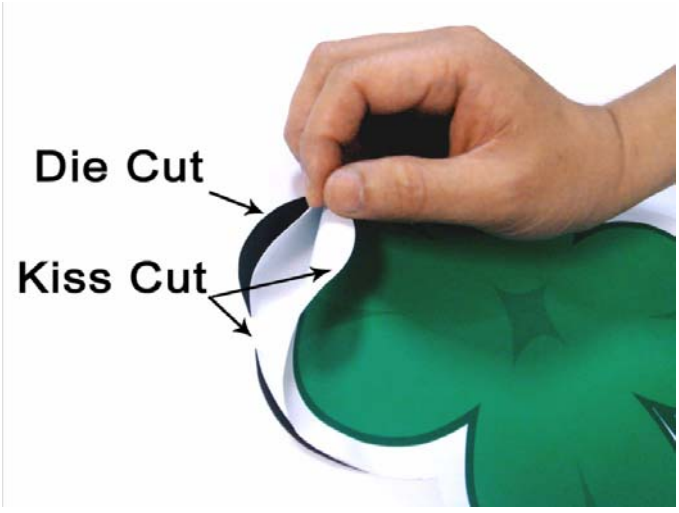
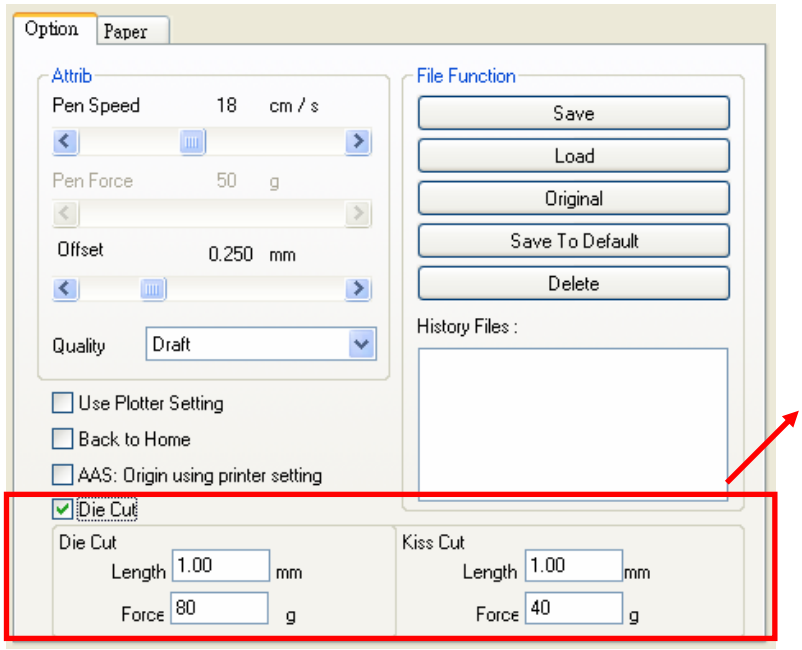


Figure 2

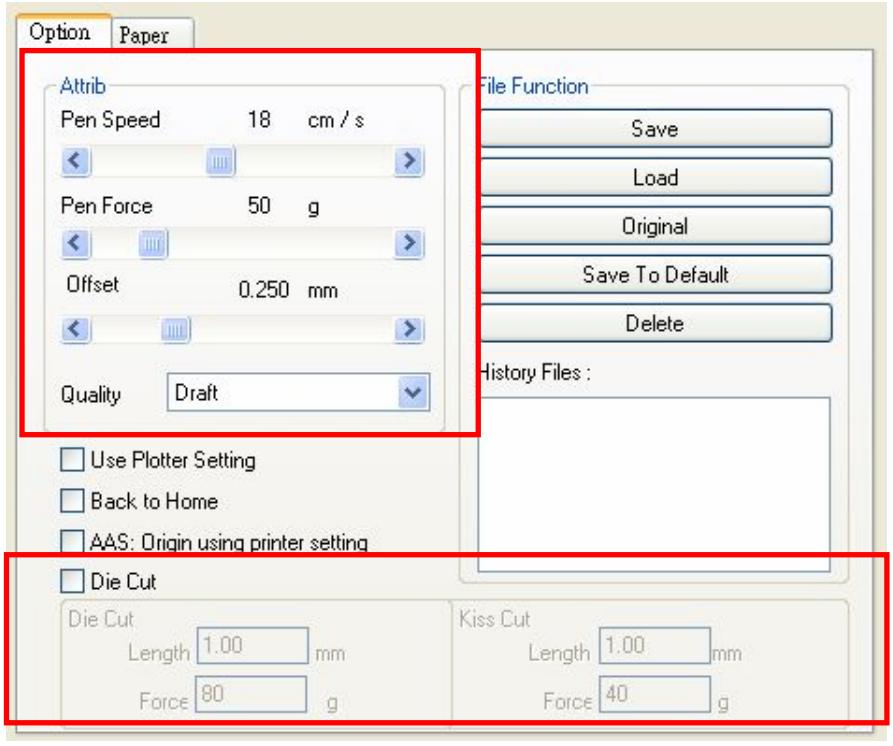
To activate the Die Cut function, go to “Option”, tick “Die Cut”, and enter the amount you wish for the “Length” and “Force” of both Die Cut and Kiss Cut, then click “OK” (see figure 3).



*Note:
The length setting for the cutting line of Die Cut is in the range of 0-2000mm whereas that of Kiss Cut is 0-100mm.

Figure 3

When the job is completed and you untick the Die Cut function, you will be able to adjust the pen speed, pen force, and offset in the section on the top following normal operating procedures (see figure 4).



Note: the extension of the blade has to be set to cut through both the top layer and the backing in the very beginning. You then adjust the tool force for the best cutting performance.

Figure 4

4.5.2 Puma III Print Driver setting>Paper Page

Connecting Multiple Cutters to one PC

This function allows your computer to recognize the cutter you wish to perform your job on from other cutters with the same model name and printers connected at the same time, eliminating its confusion when you send your image to the cutter.

To activate this function, go to “Paper” and tick “Connecting Multiple Cutters to one PC” (see figure 1). Please do not tick this box if only one cutting plotter is in use.

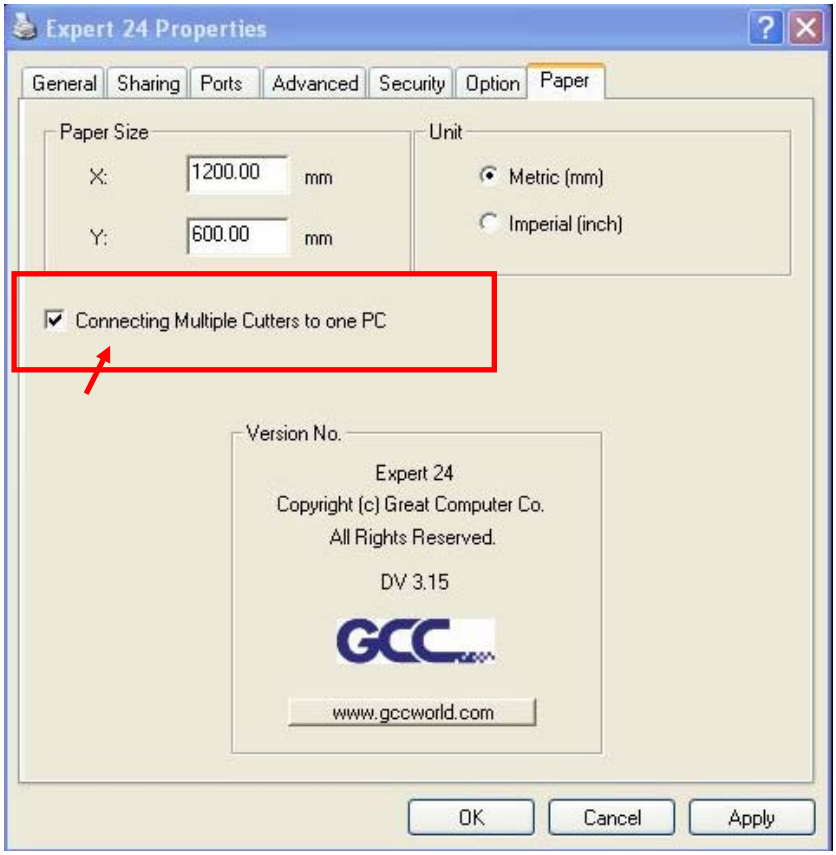


Figure 1

When you are prompted to this window below, change your port setting manually.

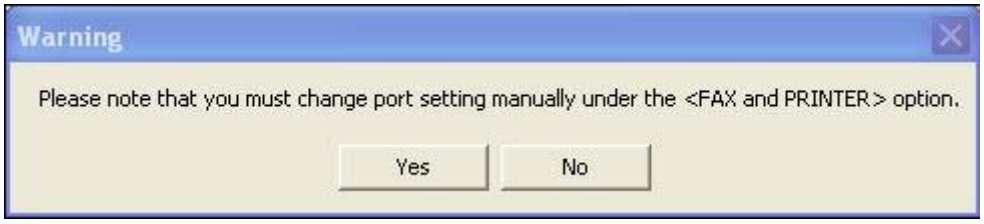


Figure 2

To do this, please go to “Printers and Faxes”, right click on the model you would like to work on and click on “Properties”.

Go to “Ports” and tick the corresponding USB port (see figure 3). When this is completed, apply the same steps to other cutters you would like to work on (see figure 4). Please make sure you connect each cutter back to the same corresponding USB port every time.

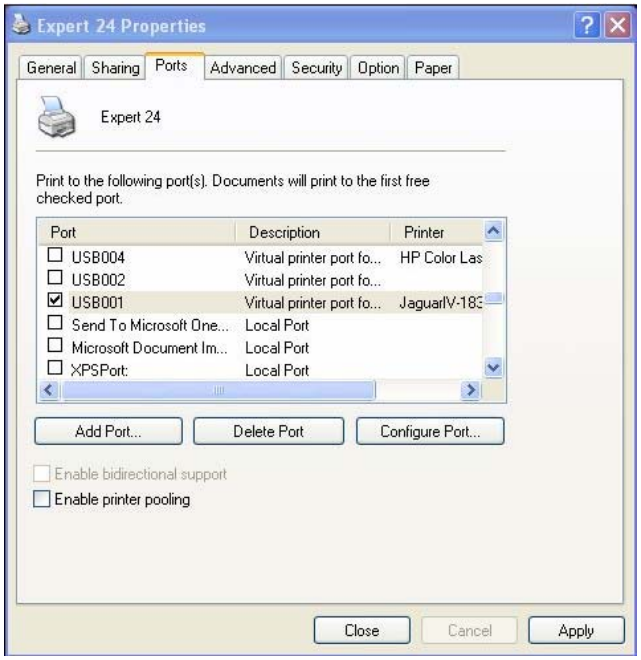


Figure 3

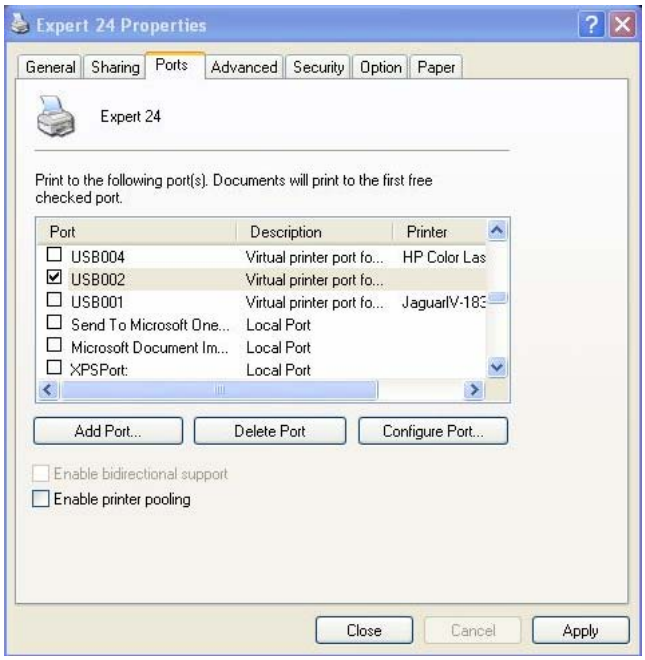


Figure 4

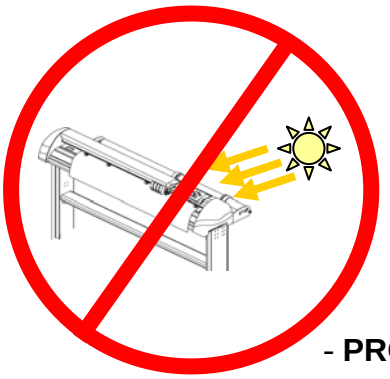
Chapter 5 Accu-Aligning System

5.1 Introduction

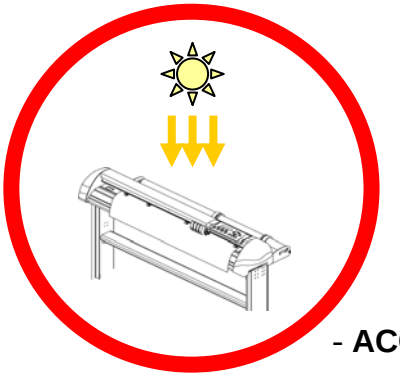
The Puma III series cutting plotters feature a standard Accu-Aligning System (AAS II) to guarantee precise contour cutting quality by detecting the registration marks printed around the graphic.

Notice

- Avoid any kind of light source horizontally illuminating the AAS module.



- **PROHIBITED**



- **ACCEPTABLE**

- DO NOT take off the cover of AAS module while in operation.

- **PROHIBITED**

5.2 AAS Calibrating the System

The AAS system has one calibration procedures to ensure maximum accuracy of AAS operation. To operate the AAS you need to learn about the method of media feeding firstly. (Refer to 4.1 Media Loading.)

5.2.1 Media Calibration

Media Calibration is to ensure the sensor being able to recognize the registration marks. The factory default works on a wide range of materials. However, certain types of materials may not work properly. Performing a media calibration may become necessary while working with such materials to change the sensitivity of AAS for greater reliability. Media calibration adjusts the media feeding according to media type for better accuracy during cutting.

- **When to use**

  We suggest white media for best cutting result. It is not necessary to perform media calibration every time unless the registration marks on the printed media become undetectable in AAS sensing process.

5.2.2 AAS Calibration

The first registration mark is designed to be different in order to identify the origin for AAS auto-detection. The following precaution must be aware for registration marks to be read automatically.

- Type of media
- Registration mark pattern
- Reading range required for detection the registration marks
- Position for registration marks and medium

The registration marks have to be:

- Created by cutting software like SignPal or GCC CorelDRAW plug-in
- In black color
- “L” Mark Length: 10mm~50mm, suggested 25 mm
- “L” Mark Thickness: 1mm~2mm, suggested 1 mm
- Margin: 1mm~50mm, suggested 5 mm

The cutter can not detect the marks while:

- Cutter carriage is not located near the outside area of first mark before detecting (See the picture in page 5-7 for auto-detecting area of first mark.)
- Medium thickness is more than 0.8mm
- Transparent medium is used

- Non-monochrome drawing. The marks can't be read if is printed on colored medium
- Dirty or creased medium surface

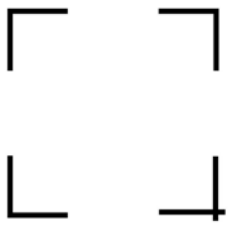
5.2.3 AAS II on Puma III

There are three types of AAS II mark patterns: 4-Point Positioning, Segmental Positioning, and Multiple Copies. Note that before print out your designs by inkjet printers, the registration marks have to be created on your graphic designs by cutting software like SignPal, EasySign or GCC CorelDraw plug-in. Hand-made marks or drawings won't be reorganized by GCC cutting plotters. For more details about registration mark setting in cutting software, please refer to '**Appendix A-3** : CorelDraw Plug-In Instruction", '**Appendix A-4** : SignPal 8.5 Instruction', '**Appendix A-5** : EasySIGN Instruction' and '**Appendix A-6** : GreatCut Instruction'

1. **4-Point Positioning**

   This is the basic mark pattern that AAS II will auto detect four registration marks and contour cut images inside those marks.

   - Command: Esc.D1;(XDist);(YDist):
   - Layout: 4 L-shaped marks at the 4 corners around the design



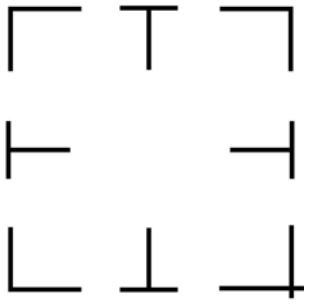
2. **Segmental Positioning**

   In addition to 4 original points, the intermediate registration marks are added on both X axis and Y axis to help contour cut accurately, especially for cutting large images.

   - **Command:** Esc.D2;(XDist);(YDist);(XStep);(YStep):
   - **Layout:**

     In-between distance on X: 200~600mm, default 300mm

     In-between distance on Y: 200-600mm, default 300mm



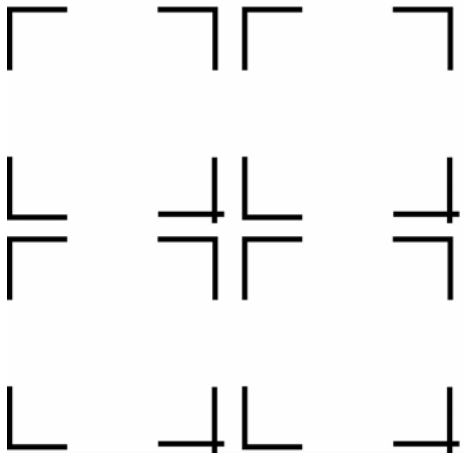
3. Multiple Copies

The function is used to duplicate images to let you cut quantities of images at a time.The AAS II sensor will automatically scan registration marks for each individual image to ensure the contour cutting precision.

- **Command:** Esc.D3;(XCopies);(YCopies);(Space):
- **Layout:**

Condition 1 (Default)

Condition 2



5.3 Printer Test

Before performing AAS contour cutting, it's recommended to print out a test file that you can find in the enclosed Installation CD to make sure the AAS II cutting accuracy of Puma III.

There are two testing files for AASII:

1. AAS II_X_Y_Offset_Caberation_A4 .eps (A4 size)
2. AAS II_X_Y_Offset_Caberation_600_600 .eps (Default setting, it is recommended for testing)

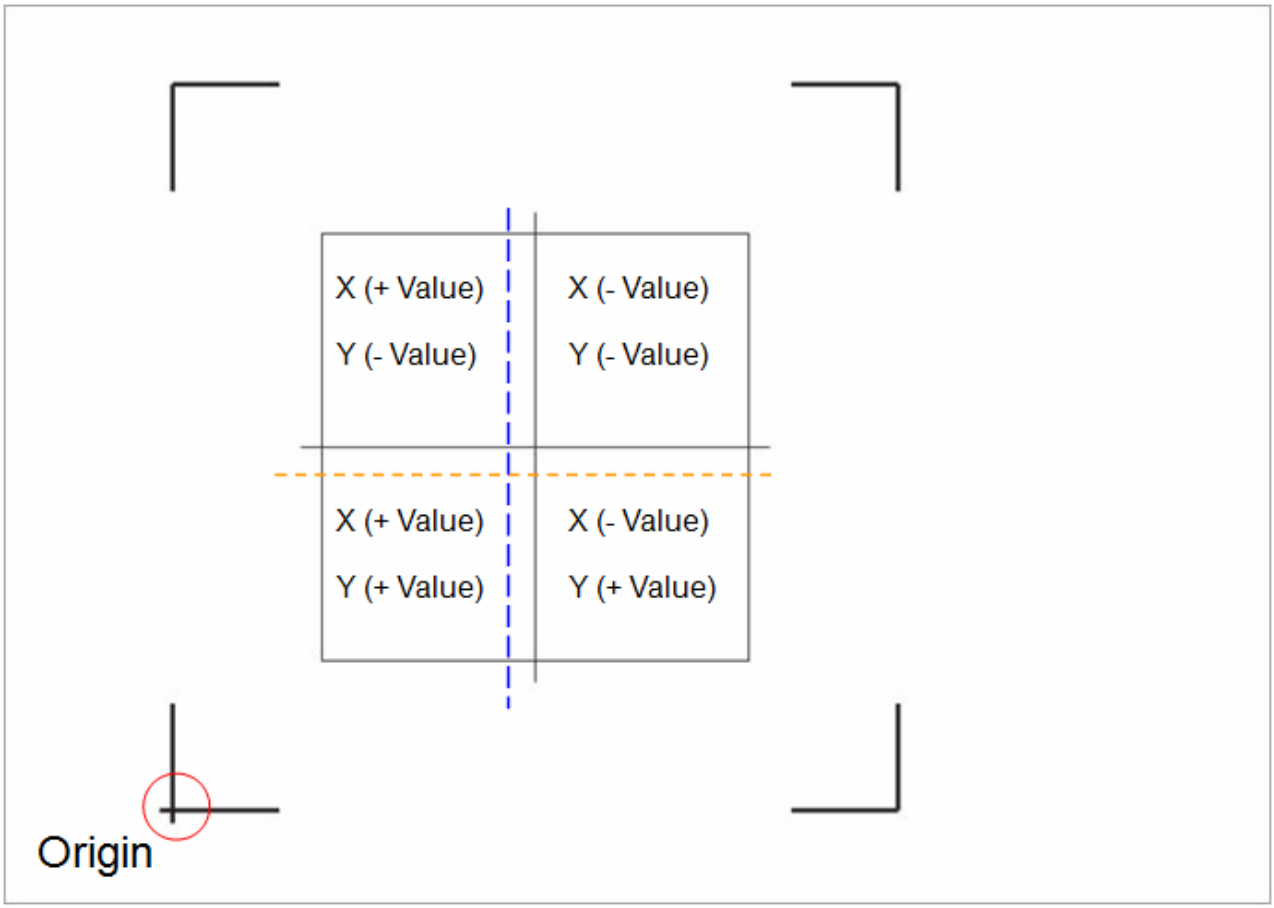
- Print out the testing graphic. (Please use high precision printer)
- Load the graphic to Puma IIIand sent the file to test the cutting job
- If there is any adjustments had to be made, you can change the offset value by following the steps:
  - ∗ Measure the offset values from the printed line and the actual cutting line.
  - ∗ Enter the AAS Offset under MISC function for the values you just measured, then press Enter
  - ∗ Test the cutting again

* AAS II offset X and Y value is defined as following:
  Horizontal line is defined as X and vertical is defined as Y
* When the actual cutting line and the printed line need to be changed towards the direction of origin mark, then simply add the ***negative*** value of the offset. If the direction is from the opposite of the origin mark, then enter ***positive*** values for the offset. This method apply on both X and Y axle.

For example:

If the values set in cutter is X: 0.50 mm Y 0.50 mm and the measurement is X1:-0.25 mm Y 1:+0.25 mm. (In following figure, the Blue Line refers to the Y Value, and the Red Line refers toe the X value.)

We need to adjust AASII offset X new : (X + X1) Y new : (Y + Y1) which means X new : 0.25 mm Y new : 0.75, then save the set new value to cutter.



Note:

- Before adjusting the AAS II settings, please proceed scaling for width and length.
- The blade offset value isn't set for this test graphic, please set it according to the blade you use.
- If you have any question, please contact us or your local distributor for assistance.

5.4 Contour Cutting

For accurate contour cutting with AAS function, please proceed the following steps:

Step 1 **Creating Graphics**

■ Create the graphic that you want to print and cut in your software.

■ Create a contour for cutting around the graphic.

TIPS1: Leave some space between the graphic and contour line.

TIPS2: Create the contour in a separate layer and assign a different color for it.

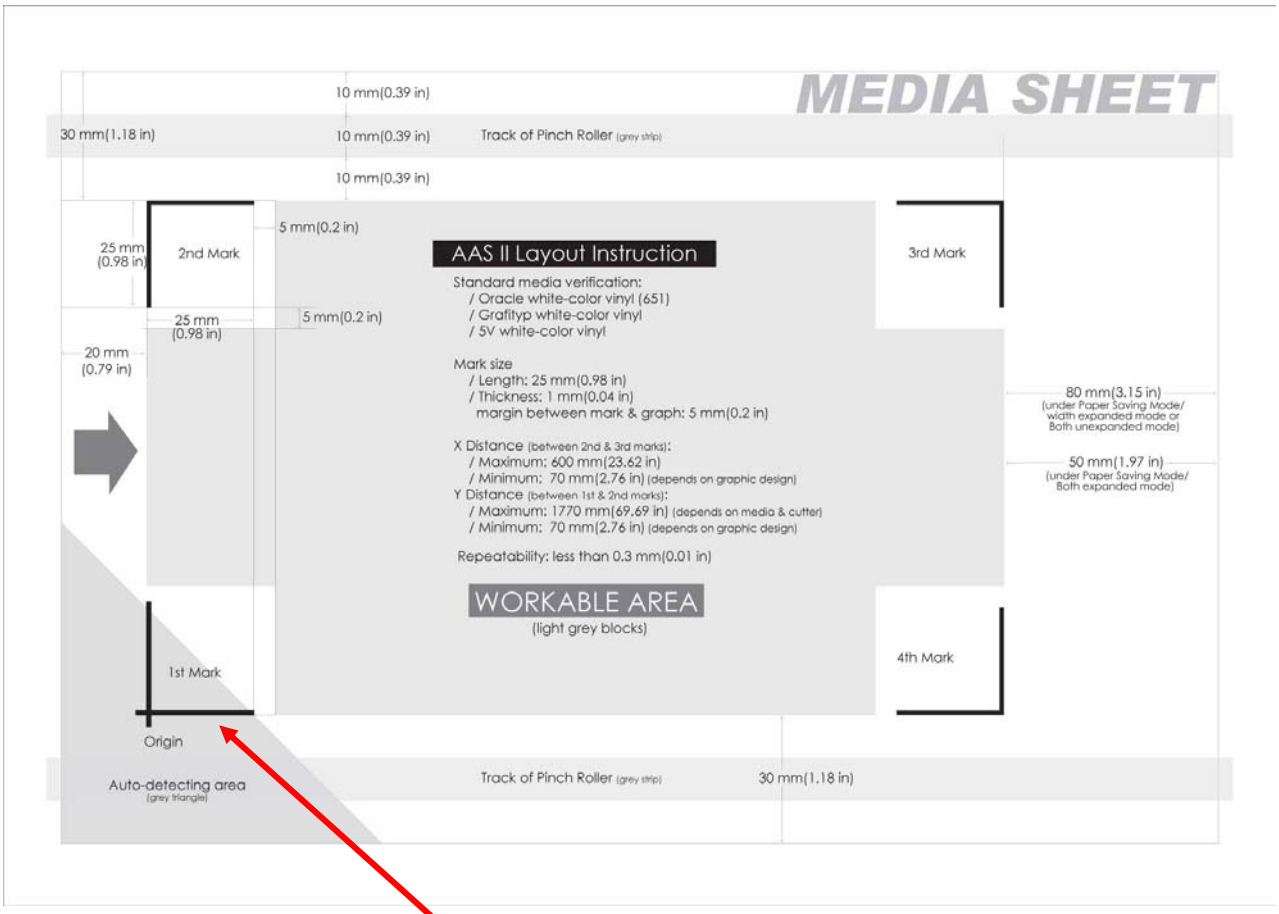
■ Add registration marks around the graphic.

Note:

The Multiple Copies function is also available. It automatically copy the graphic and registration marks.

Step 2 Placing the Registration Marks

■ The AAS Layout Instruction:


MEDIA SHEET
10 mm(0.39 in)
30 mm(1.18 in)
10 mm(0.39 in)
Track of Pinch Roller (grey strip)
10 mm(0.39 in)
5 mm(0.2 in)
25 mm (0.98 in)
2nd Mark
AAS II Layout Instruction
3rd Mark
Standard media verification:
/ Oracle white-color vinyl (651)
/ Grafityp white-color vinyl
/ 5V white-color vinyl
25 mm (0.98 in)
5 mm(0.2 in)
20 mm (0.79 in)
Mark size
/ Length: 25 mm(0.98 in)
/ Thickness: 1 mm(0.04 in)
margin between mark & graph: 5 mm(0.2 in)
80 mm(3.15 in)
(under Paper Saving Mode/ width expanded mode or Both unexpanded mode)
X Distance (between 2nd & 3rd marks):
/ Maximum: 600 mm(23.62 in)
/ Minimum: 70 mm(2.76 in) (depends on graphic design)
50 mm(1.97 in)
(under Paper Saving Mode/ Both expanded mode)
Y Distance (between 1st & 2nd marks):
/ Maximum: 1770 mm(69.69 in) (depends on media & cutter)
/ Minimum: 70 mm(2.76 in) (depends on graphic design)
Repeatability: less than 0.3 mm(0.01 in)
WORKABLE AREA
(light grey blocks)
4th Mark
1st Mark
Origin
Auto-detecting area
(grey triangle)
Track of Pinch Roller (grey strip)
30 mm(1.18 in)

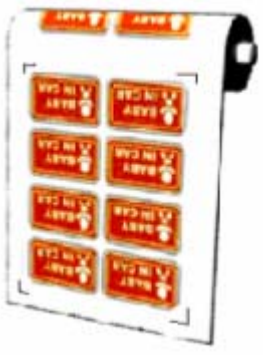
* Auto-detection function on the 1st mark covers the grey area

■ Suggested 30mm margin on both left and right sides of media sheet.

■ Suggested 20~30mm margin on top of media sheet, and at least 50mm margin on the bottom edge to prevent sheets dropping or any error occurred while media sizing.

Step 3 Print the Graphics

■ Print the graphic and the marks with your printer

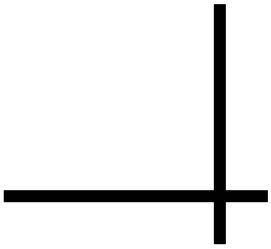


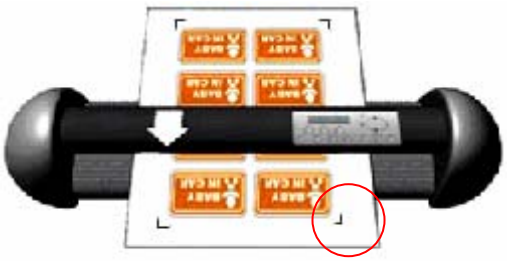
(Scaling = 100%).

■ When printing on a roll media, make sure the orientation as following:

Step 4 **Load the printout onto cutter**

■ The Origin Mark is is different from the rest registration marks. Please make sure the media is fed with correct direction.





Step 5 **Cut the Contour**

■ Send out the command from software to perform the contour cutting job.

5.5 Tips for AAS

For getting better results of contour cutting, there are some tips below for your reference.

- Keep light sources simple and avoid illuminating from the sides of cutter.
- Before operating AAS, change the maximum paper size in Puma IIIdriver property.
  STEP 1 Find the **Puma III model** in the “Printer & Fax” folder of your PC.
  STEP 2 Open the Properties window and select the “Paper” tab.
  STEP 3 Change the maximum Paper Size of X to **1200**mm.
- Adjust the cutting speed to between 300~600mm/sec.
- Avoid the registration marks locating on the tracks of pinch rollers.

Chapter 6 Basic Maintenance

This chapter explains the basic maintenance (i.e. cleaning the cutting plotter) required for the cutting plotter. Except for the below mentioned, all other maintenance must be performed by a qualified service technician.

6.1 Cleaning the Cutting Plotter

In order to keep the cutting plotter under good condition and best performance, you need to clean the machine properly and regularly.

Precaution in Cleaning

- ✧ Unplug the cutting plotter before cleaning
- ✧ Never use **solvents, abrasive cleaners or strong detergents** for cleaning. They may damage the surface of the cutting plotter and the moving parts.

Recommended Methods

- ❖ Gently wipe the cutting plotter surface with a lint-free cloth. If necessary, clean with a damp cloth or an alcohol-immersed cloth. Wipe with water to rinse off any residue and dry with a soft, lint-free cloth.
- ❖ Wipe all dust and dirt from the tool carriage rails.
- ❖ Use a vacuum cleaner to empty any accumulated dirt and media residue beneath the pinch roller housing.
- ❖ Clean the platen, paper sensors and pinch rollers with a damp cloth or an alcohol-immersed cloth, and dry with a soft, lint-free cloth.
- ❖ Wipe dust and dirt from the stand.

6.2 Cleaning the Grid Drum

- Turn off the cutting plotter, and move the tool carriage away from the area needed to be cleaned.
- Raise the pinch rollers and move them away from the grid drum for cleaning.
- Use a bristle brush (a toothbrush is acceptable) to remove dust from the drum surface. Rotate the drum manually while cleaning. Refer to Figure 6-1

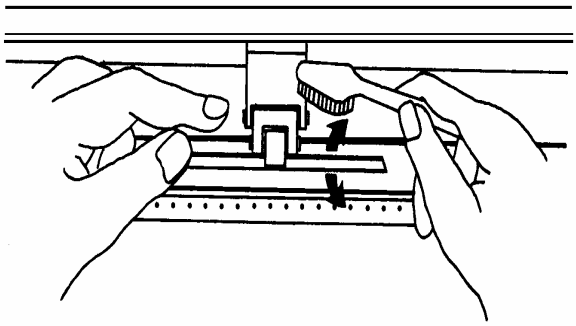


Figure 6-1

6.3 Cleaning the Pinch Rollers

If the pinch rollers need a thorough cleaning, use a lint-free cloth or cotton swab to wipe away the accumulated dust from the rubber portion of the pinch rollers. To prevent the pinch rollers from rotating while cleaning, use finger to hold the pinch rollers not to rotate.

If needed to remove the embedded or persistent dust, use the lint-free cloth or cotton swab moistened with rubbing alcohol.

Note: The daily maintenance of your cutting plotter is very important. Be sure to clean up the grid drum and pinch rollers regularly for better cutting accuracy and output quality.

[DirectCut] Installation Procedure

[For Macintosh]

* This screen describes installation for the Windows version. The same steps can be followed to install the Mac version.

① Start up your computer. Insert the installation disk, and open the disk from My Computer.

② Run **XX Install.exe** by double-clicking on it **(XX is the product name;** the extension .exe may not appear depending on circumstances).

③ The [Select the Folder to Install] screen is displayed. Put a check next to the version of Illustrator that you use, and verify that the Plug-ins folder of Illustrator is selected. If this folder is not selected, click on the browse button, otherwise click on the install button.

* Reference: This image displays on the screen when Illustrator is installed by default

④ The [Browse Folders] screen is displayed. Select the [**Plug-ins**] folder of Illustrator to install. Click on the [**Plug-ins**] folder, and click the Select button. The “Select the Folder to Install” screen will reappear. Click on the Install button.

⑤ The [Installation Completed] screen is displayed. Click on the Close button.

⑥ Start up your copy of Illustrator, and verify that the registration screen appears. On this screen, input the serial number you acquired when you purchased the plug-in software using uppercase letters.

* Note:

If you forgot to put a check next to the version of Illustrator or selected an incorrect folder to install to at step ③, the plug-in software may not be installed successfully. In such a case, repeat the steps to install it.

Note to Reinstall for Updating, etc.

If you reinstall the plug-in software for updating or for some other reason, the old version of the plug-in software will not be overwritten. Please ensure that you uninstall the old version. You can uninstall it by directly deleting it from the Plug-ins folder. Also delete the files associated with the plug-in in the same way.

---

1. New Tool

After installing **DirectCut**, the four submenus ("RS232 SetUp," "Plotter Setup," "Plotter Output," and "Show **DirectCut** 2 Tool") and the **DirectCut** tools are added to the File menu.

[RS232 SetUp]
Determines the connection setting required for outputting your data. This setting should correspond to that of the destination plotter. You must complete this setting after you install or reinstall **DirectCut** or it will not be able to output to the plotter.

[Plotter setup]
Determines the setting for your output device. You must complete this setting after you install or reinstall DirectCut or it will not be able to output to the plotter.

[Plotter output]
Determines the detailed settings required for outputting (output position, direction, size, etc.) and sends the actual data to your output device.

[Show /Hide DirectCut Tool]
Shows or hides the DirectCut tools.

[Tools]
The tools that come with DirectCut, from which you can access all of its functions.

[Plotter
output]
Determines detailed settings required for outputting (output position, direction, size, etc.) and sends the data to your output device. This is the same function as "Plotter output" in the menu.

[Text outline]
Outlines letters.

[Invert word]
Creates vehicle letterings.

[Do line width acknowledge and merge]
Processes line width and the overlap between objects.

[Make outline and offset]
Extracts outlines of letters.

[Make rip]
Embeds peel-off tabs in elements.

[Split plot data]

Creates overlaps and auto-split lines when splitting your output.

[Check and make new start point]

Checks or changes the start point at output.

[Check group information]

Checks the output elements per group.

2. Setting

2-1 RS232 SetUp

Determines the interface of your computer to connect a cable to, the data transfer criteria between your output device and the software, and so on.

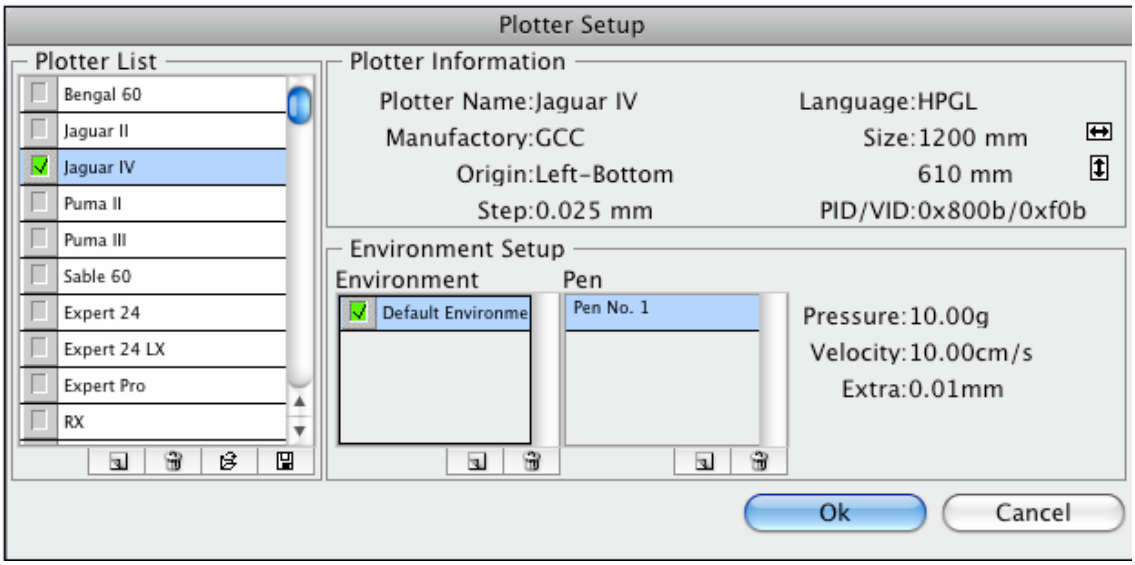
* For successful output, you need to match the settings of the software with those of your output device. Make sure to refer to the manual of your output device.

* Determines the Win output port and transfer criteria.

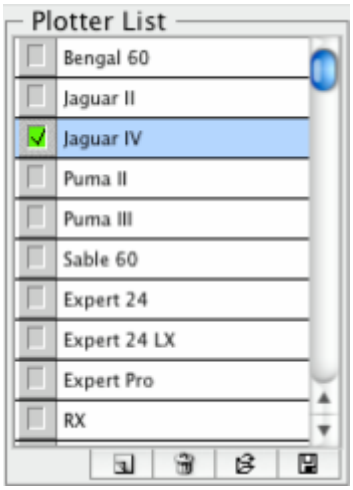
* DirectCut automatically finds your computer's output port so you can easily select it from the pull-down menu.

2-2 Plotter Setup

In "Plotter Setup," you can choose "Plotter List," "Environment," "Pen," and so on.



[Plotter list]



In this area, you can choose the machine type and set some basic information for your plotter such as the plotting area. The screen below shows ten cutting plotter models.

As shown above, the machine type displayed with a green check button represents the default plotter. You can click the button to enable or disable the plotter as well as double-click the name of the machine type to set the machine information.

[The Plotter setup Screen]

Double-clicking name of the cutting plotter will display the dialog below. The information shown here varies according to the model you have selected.

[Plotter name]

Enter a name for your machine here.

[Manufactory]

Enter the name of your machine's manufacturer here.

[Origin]

Allows you to choose the home position of your machine from:

[Center] ・・・center position

[Left-Bottom] ・・・lower left position

[Left-Top] ・・・upper left position

Make sure to choose the same position as you set on the plotter.

[Language]

Determines the transfer instruction format for your machine. Make sure to choose the same language as you set on the plotter.

[Step]

Enter the step size of your machine here. Make sure to choose the same size as you set on the plotter.

[Size]

Determines the maximum range for cutting.

Starting from the left:

[New plotter]

Creates new plotter information.

[Delete current plotter]

Deletes current plotter settings.

[Load plotter from file]

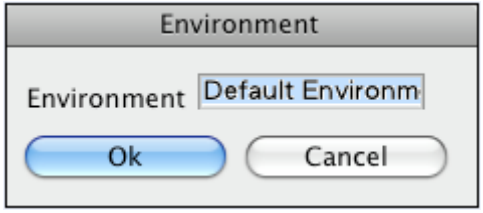
Retrieves saved plotter information.

[Save current plotter file]

Saves current plotter settings.

[Load plotter from file] and [Save current plotter file] work hand in hand. Users are able to save the plotter settings and retrieve them on another computer without the hassle of resetting.

[Environment setup]



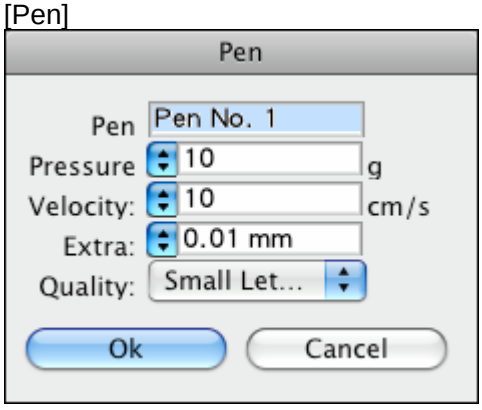
Specify the name for the output environment here. The screen below shows two different environment names. The environment name displayed with a green check button represents the default output environment file.

You can click the button to enable or disable the environment as well as double-click the name of the output environment to modify it.

Creates a new output environment file.

[Delete current environment]
Deletes the current output environment file.

[Pen]



Determines the pen settings in accordance with the name of the output environment. In the screen below, three different pen settings which correspond to the current default output environment have been created.

You can set "Pen name," "Force", "Speed" and "Offset". To change the setting, double-click the name of the setting you want to change.

[Pen name]
Enter a pen name here. Later, this name will be conjoined to a layer with which you use the pen. Type a name that is as easy for you to understand as possible.

[Pressure]
Determines pen pressure.

[Velocity]
Determines speed.

[Extra]
Determines the amount of overcutting.

Starting from the left:

[New pen]

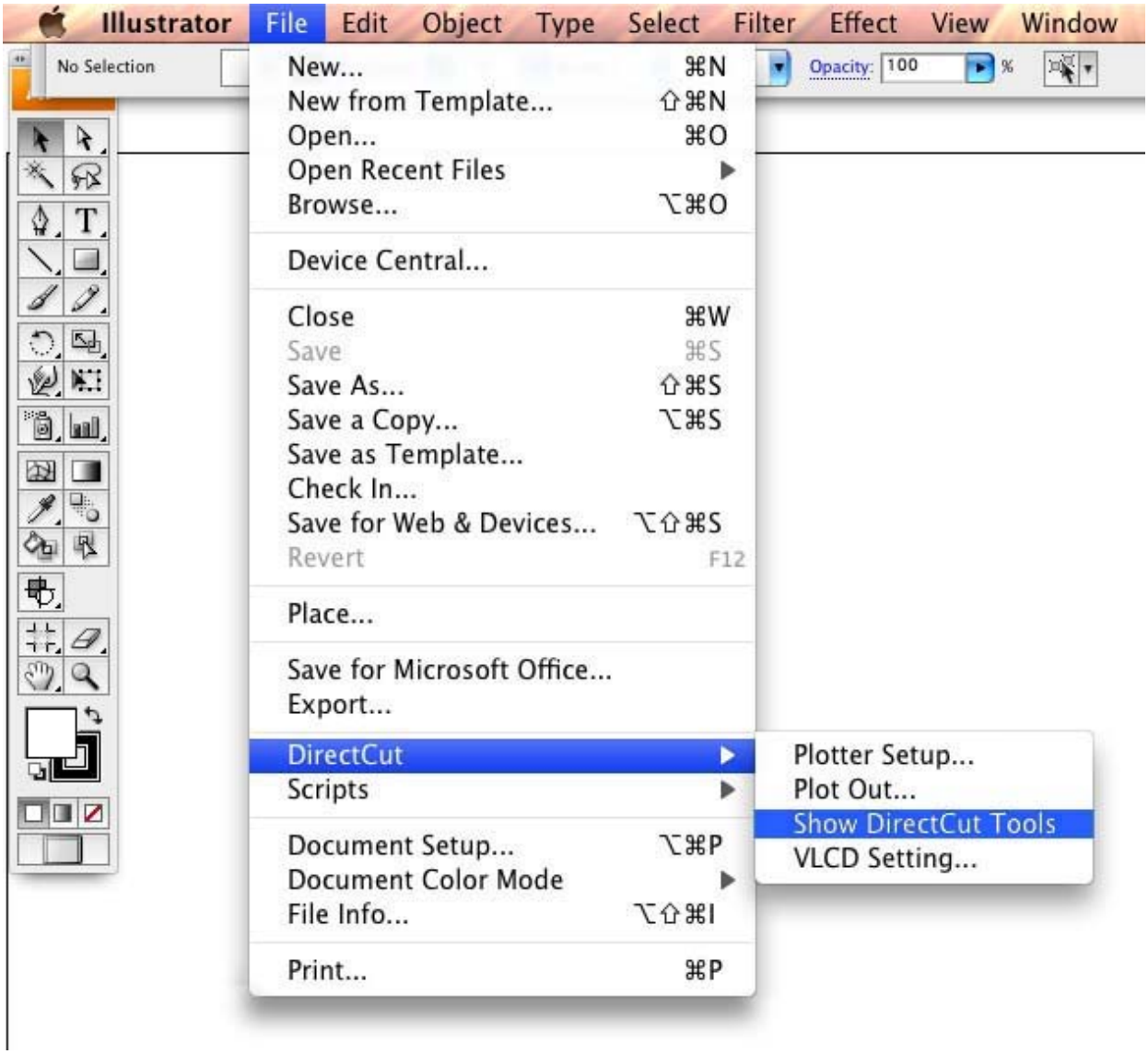
Creates new pen information.

[Delete current pen]

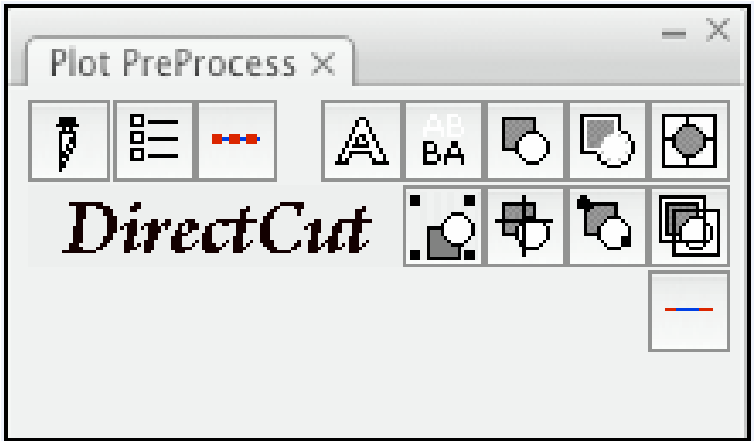
Deletes current pen information

3. Creating output data

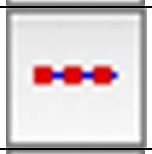
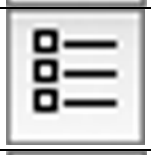
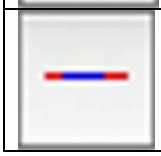
Go to File and select “Show DirectCut Tools” under “DirectCut”



You will be presented with this dialog below:



The function of each command is shown in the table below, followed by the detailed instructions of giving the commands:

	Text outline		Check and make new start point
	Make outline and offset		Check group information
	Do line width acknowledge and merge		Invert word
	Add registration marks		Die cut
	Make a rip		Plotter setup
	Split plot data		Plotter output
	Over Cut		

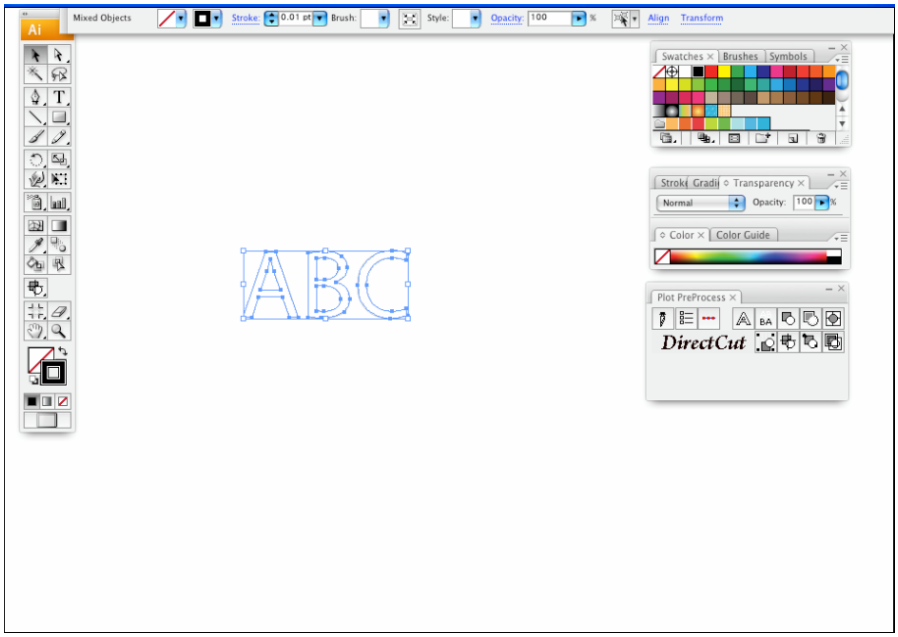
[Text outline]

This tool outlines letters.

All letters must be outlined through this tool to generate output data.

① Choose the letters that you want outlined.

② Choose the Text outline command and a contour line will be created for your image.



Note:
1. The line width must be set as 0.001 mm
2. [Text outline] must be applied first before applying [Make outline and offset]

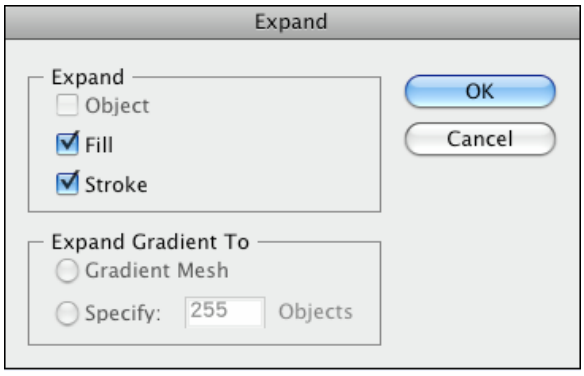
[Make outline and offset]

Extracts outlines of graphics.

① Choose a graphic from which to extract an outline.

② Choose the Make outline and offset command.

③ Enter the amount of offset and then click “OK” when the “Expand” window is presented.



* If you want to use the previous offset value as it is, you need to shift-click.

[Do line width acknowledge and merge]

Captures the line width of the objects created with Illustrator's line width function and generates the outline data. If the objects are overlapped, DirectCut computes the overlapped part to generate the output data.

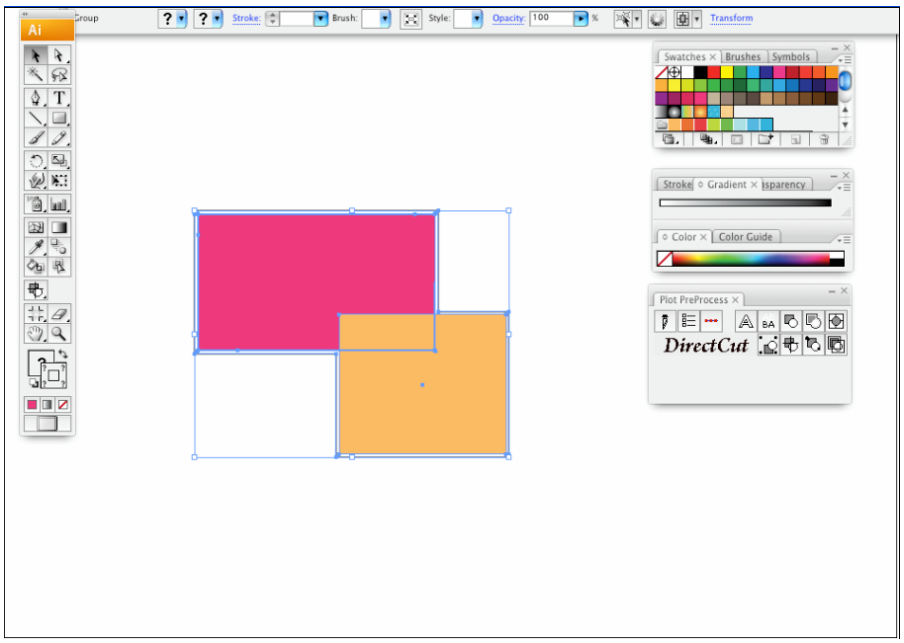
① Choose a graphic that you want to process.

② Choose the Do line with acknowledge and merge command.

If you produce data from the original data as shown on the previous page, it will be converted to the output data shown in the following figure.

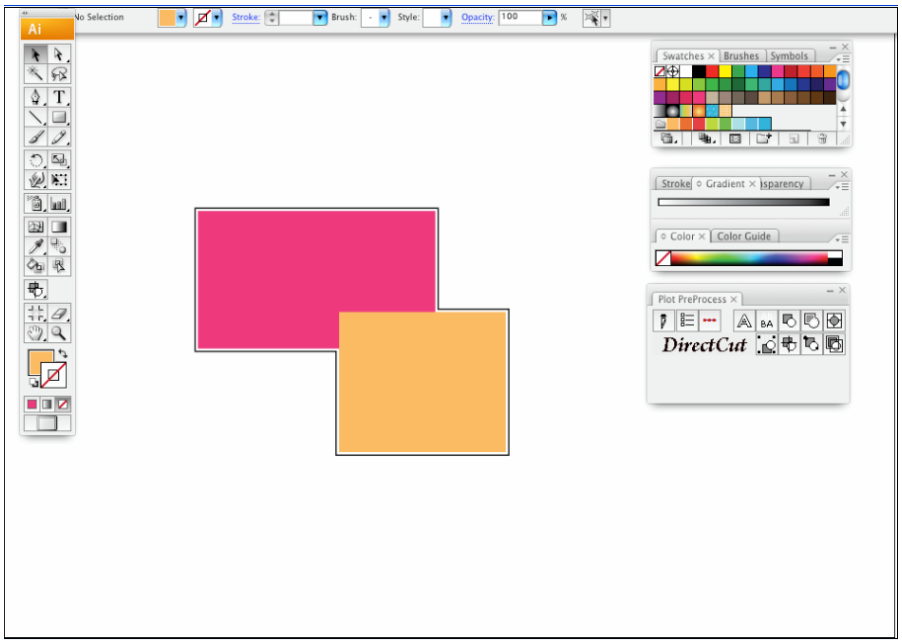
* This figure shows that the data was ungrouped and moved to another position after it was generated.

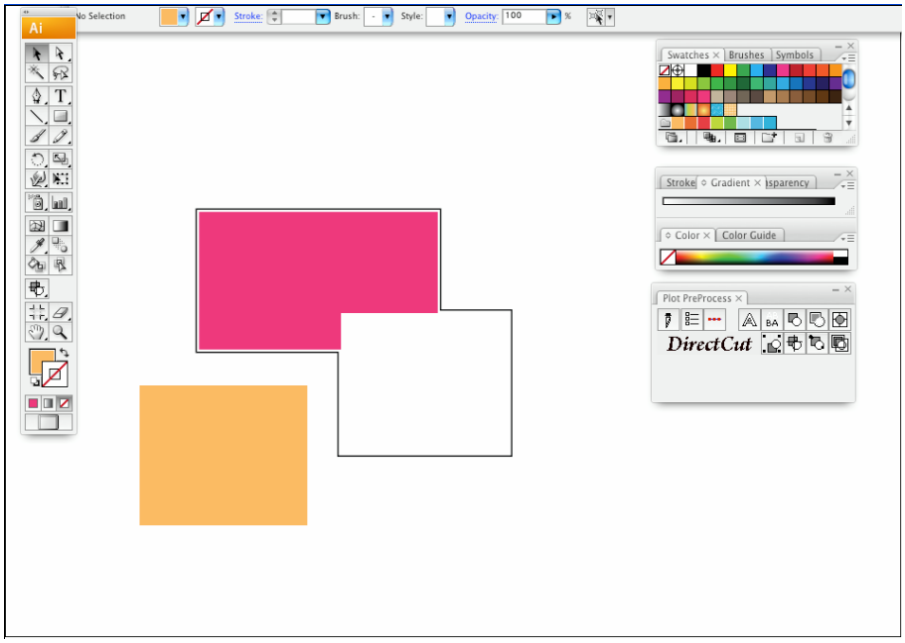
Create the images you would like to output and make contour lines.



Group the overlapped images and apply the [Do line width acknowledge and merge] command and a joint outline will be created.

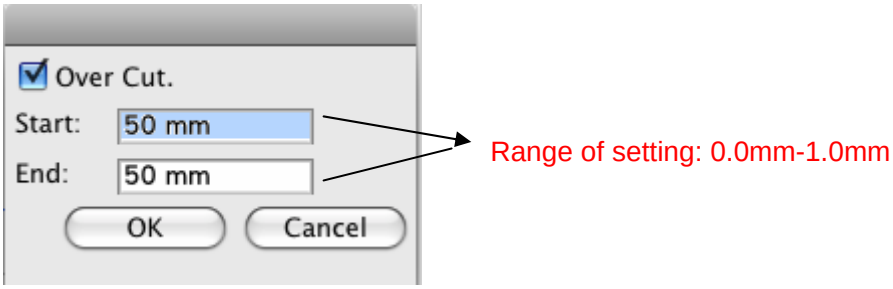
If you ungroup the images and move one of them, the overlapped part will disappear as shown in the figure below.



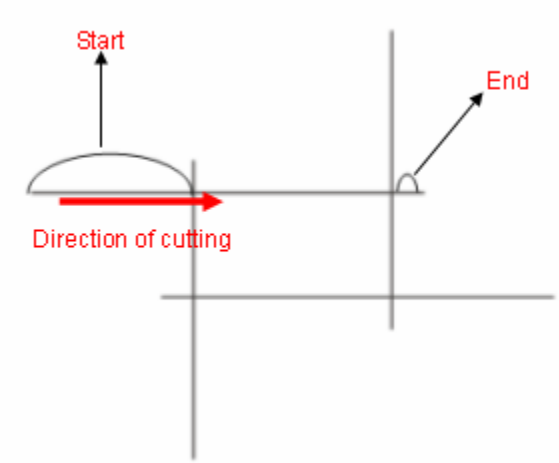


[Over Cut]

Over-cuts the cutting line segments to ensure all angles are fully cut and materials are easily peeled from the backing.
Click on the [Over Cut] command, make sure the [Over Cut] box is ticked and enter the Start and End segment values when the dialogue below shows up.



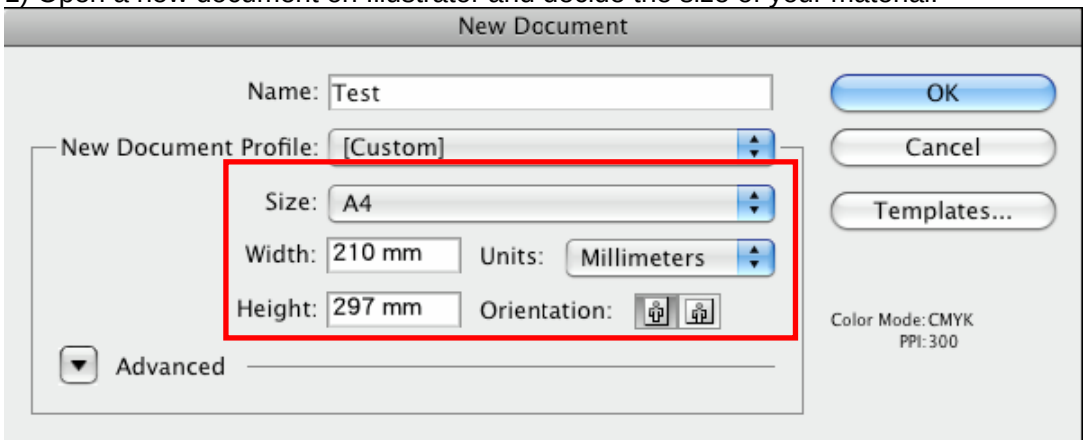
The command of over-cutting would then be given as shown below



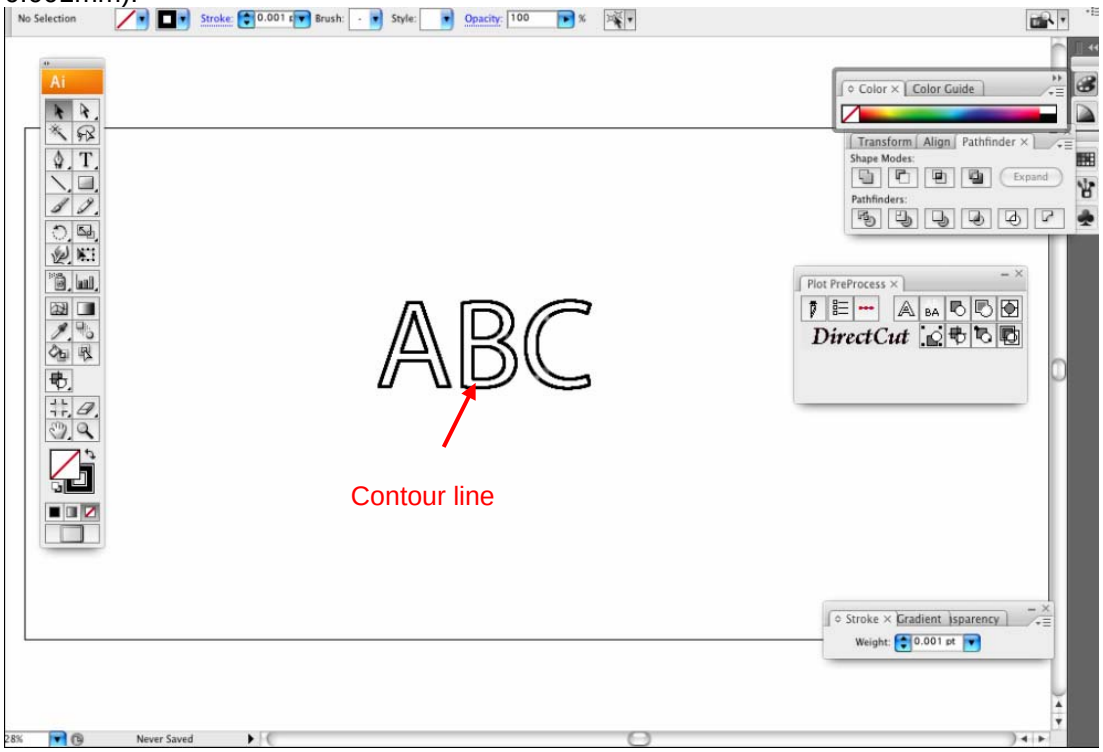
User Instructions

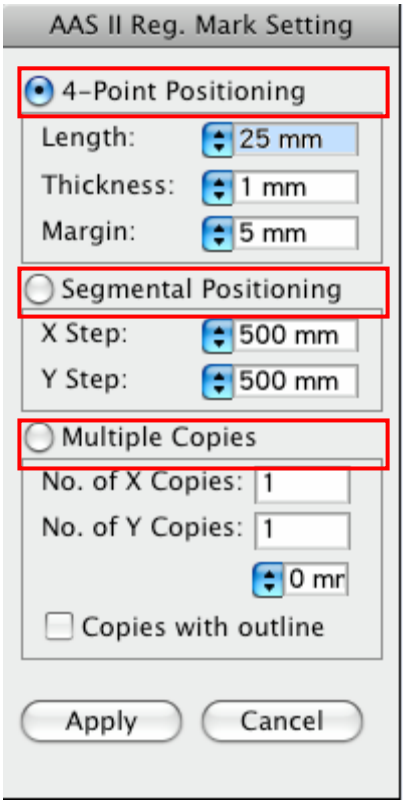
[Add registration marks]

1) Open a new document on Illustrator and decide the size of your material.



2) Edit your image and create a contour line (Note: you must have the line width set as 0.001mm).



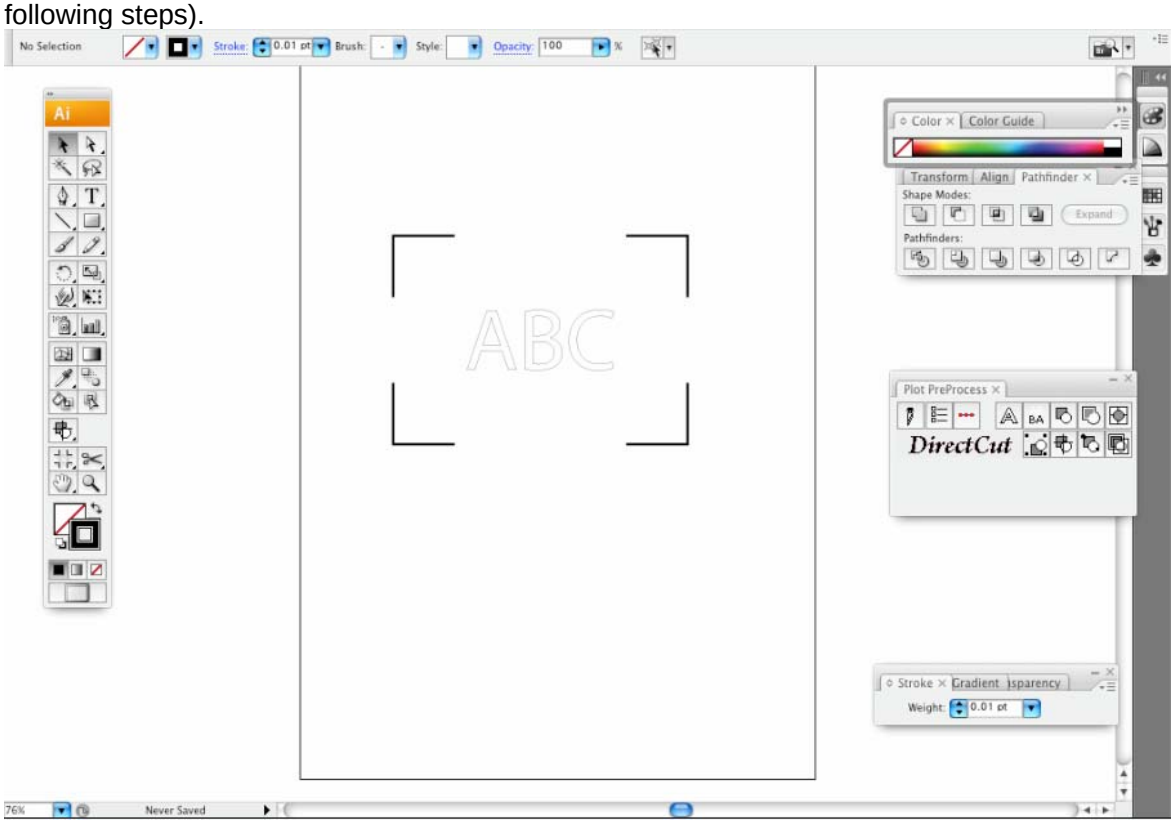


3) Click on the image and apply the AAS function by clicking the “Add registration marks” command and select the registration marks needed.

Three types of registration marks are introduced here: 4-Point Positioning, Segmental Positioning and Multiple Copies.

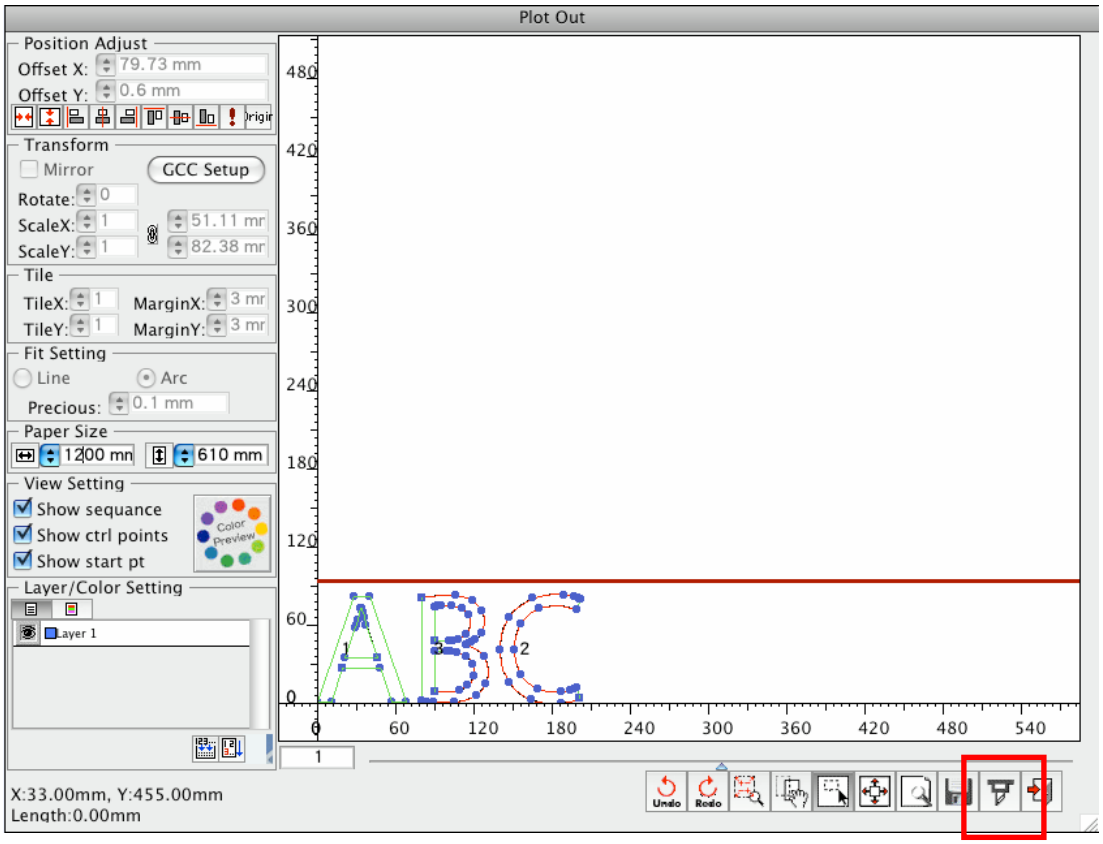
Note:
The values entered in the “4-Point Positioning” section (length, thickness and margin) will still be applied when you tick “Segmental Positioning” or “Multiple Copies”.

6) Confirm the registration marks (the 4-Point Position mark is used as an illustration in the following steps).



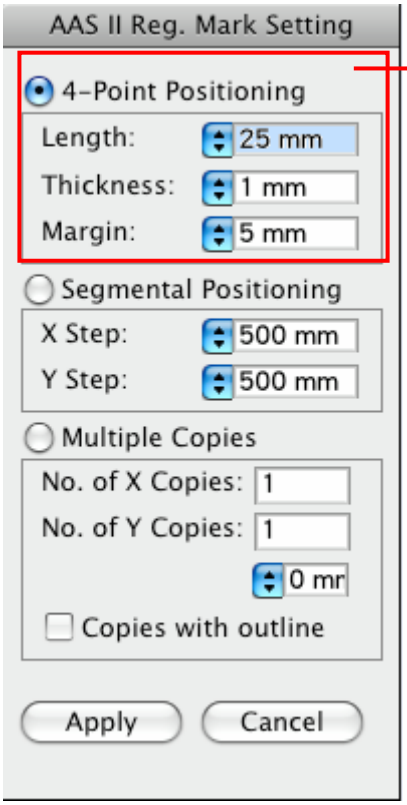
7) Print out the file with the contour line and the registration marks. Place the printed file on the cutter, lower the pinch rollers and then position the carriage at the origin of the registration marks.

8) To output the image, click on the [Plotter output] command and you can see the position of the image on the material; click the “Export” command and your object will be sent to the cutter.



Three types of registration marks

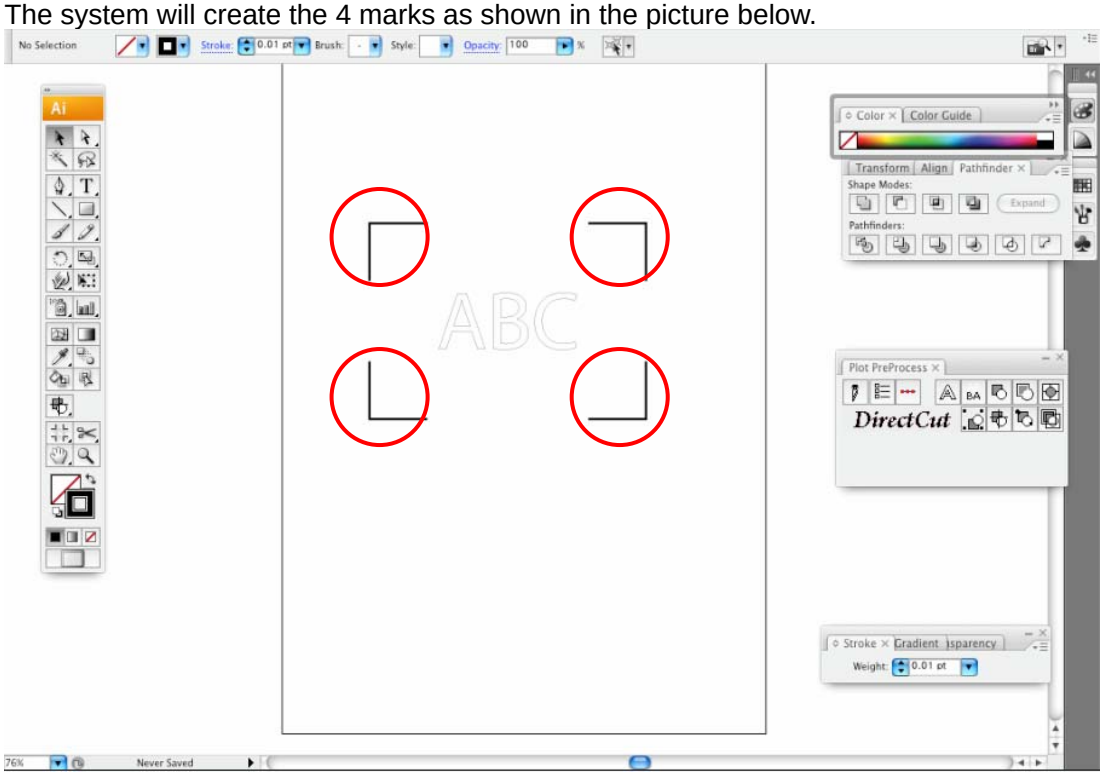
4-Point Positioning



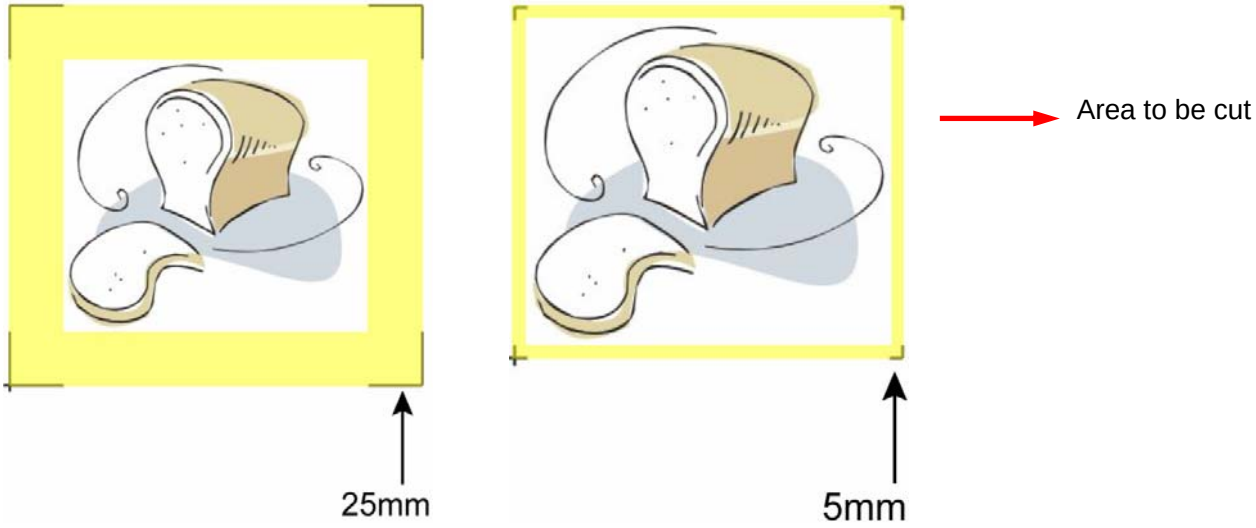
4-Point Positioning

- Length: The length of marks
  → Range: 5mm~50mm
  → Optimized Setting: 25mm
- Thickness: The line thickness of marks
  → Range: 1mm~2mm
  → Optimized Setting: 1mm
- Margin: The distance between marks and images
  → Range: 0mm~50mm
  → Optimized Setting: 5mm

The system will create the 4 marks as shown in the picture below.



Note:
To save your materials, in addition to amending object margins, you can also adjust the length of the registration marks (**10**mm minimum) when you apply 4-Point Positioning (see table 1 for suggestions based on different material sizes). The smaller the size is, the smaller the distance between the object and the registration marks is (see the figures below).



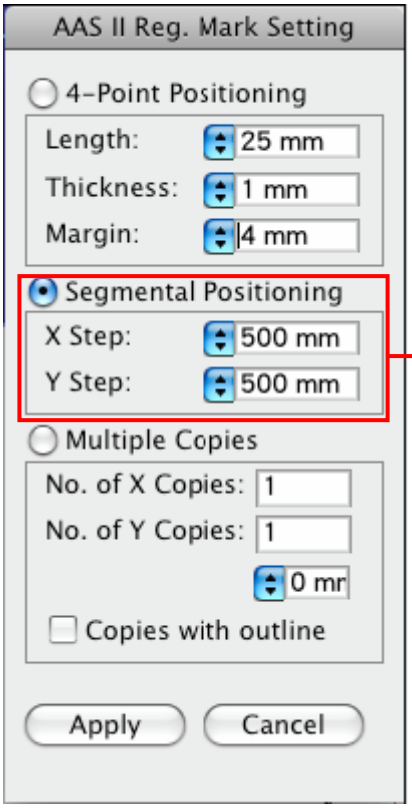
Page size (unit: inch)	Suggested mark length (unit: mm)
A6 (4.13 × 5.83)	5
A5 (5.83 × 8.27)	8
A4 (8.27 × 11.69)	11
A3 (11.69 × 16.54)	16
A2 (16.54 × 23.39)	23
A1 (23.39 × 33.11) and above	25*

Table 1
*25mm is the suggested value for the registration mark length

2. The size of the registration marks would affect the accuracy of registration mark detection so please make sure the amount you enter is reasonable.

Segmental Positioning

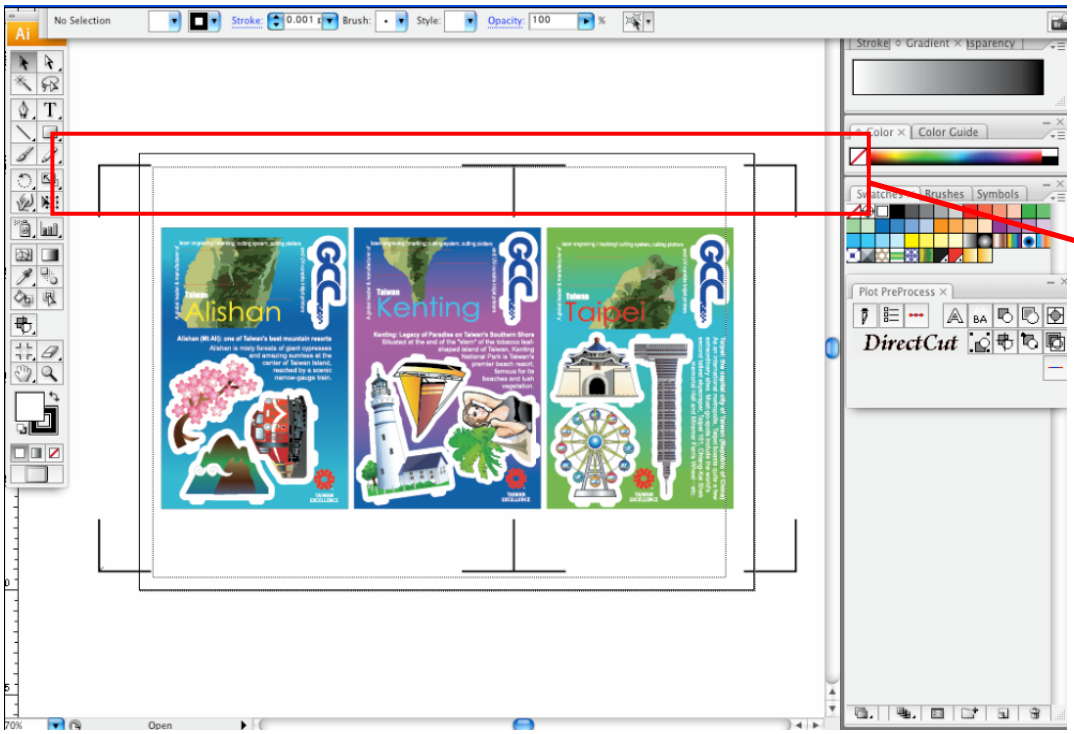
For precise cutting quality, it is suggested to select “Segmental Positioning” when you are working on an extra long or large-sized image to increase cutting accuracy.



Segmental Positioning

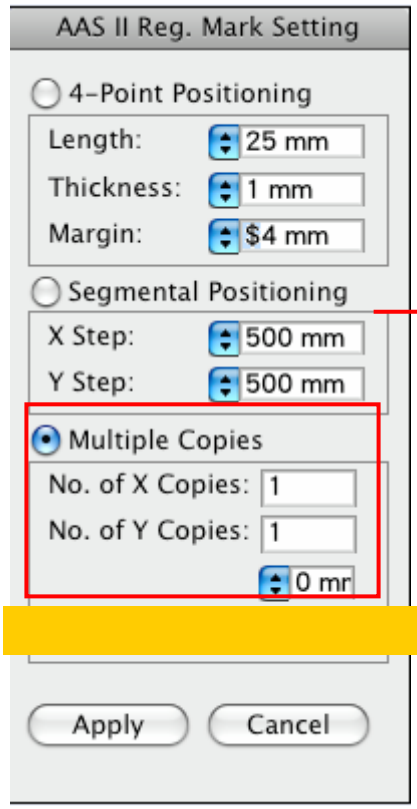
- X Step: The distance of intermediate position on the X axis
- Y Step: The distance of intermediate position on the Y axis
  → Range: 200mm~600mm
  → Optimized Setting: Less than 500mm
- Note: The values entered in the “4-Point Positioning” section (length, thickness and margin) will still be applied when you tick “Segmental Positioning”.

The system will create the marks as shown in the picture below



Multiple Copies

It is suggested to select “Multiple Copies” when you would like to make several copies of one image on your material to increase cutting accuracy.

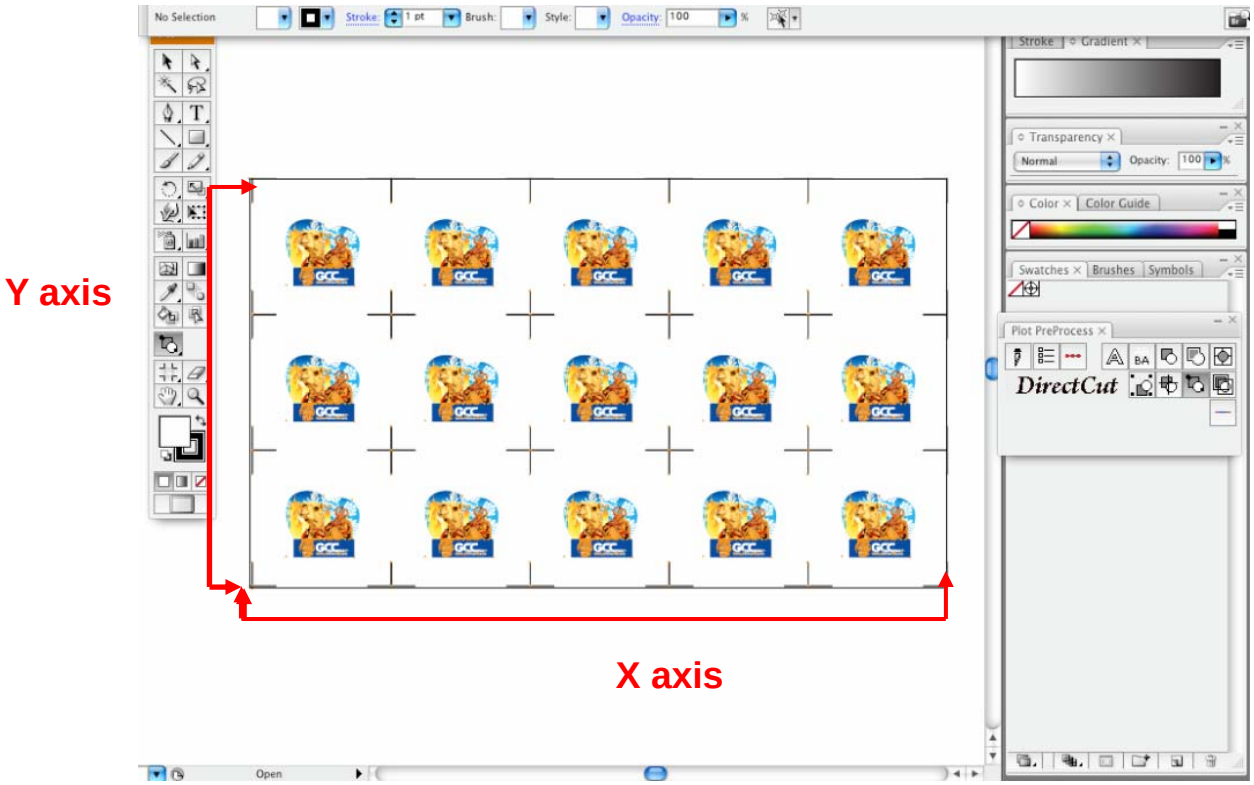


Multiple Copies

- No. of X Copies: The numbers of copies on X axis
- No. of Y Copies: The numbers of copies on Y axis
  → Range: 1~10. (The more copies you make, the more time is needed for data transmission.)
  → Numbers of X Copies * Numbers of Y Copies = The total amount of image copies
- Copies with outline： To show outlines of image graphics
- Margin: Space between marks; must be 0 -100, no negative numbers allowed

Note: The values entered in the “4-Point Positioning” section (length, thickness and margin) will still be applied when you tick “Multiple Copies” and the “Copies with Outline” command.

The system will create the as shown in the picture below.



[Make rip]

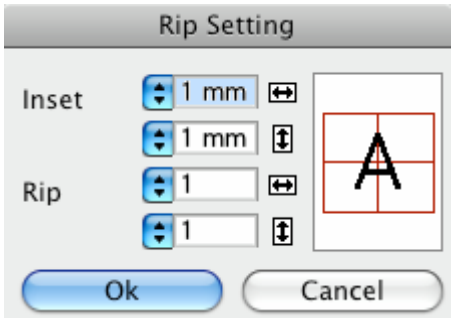
Creates peel-off tabs for graphics.

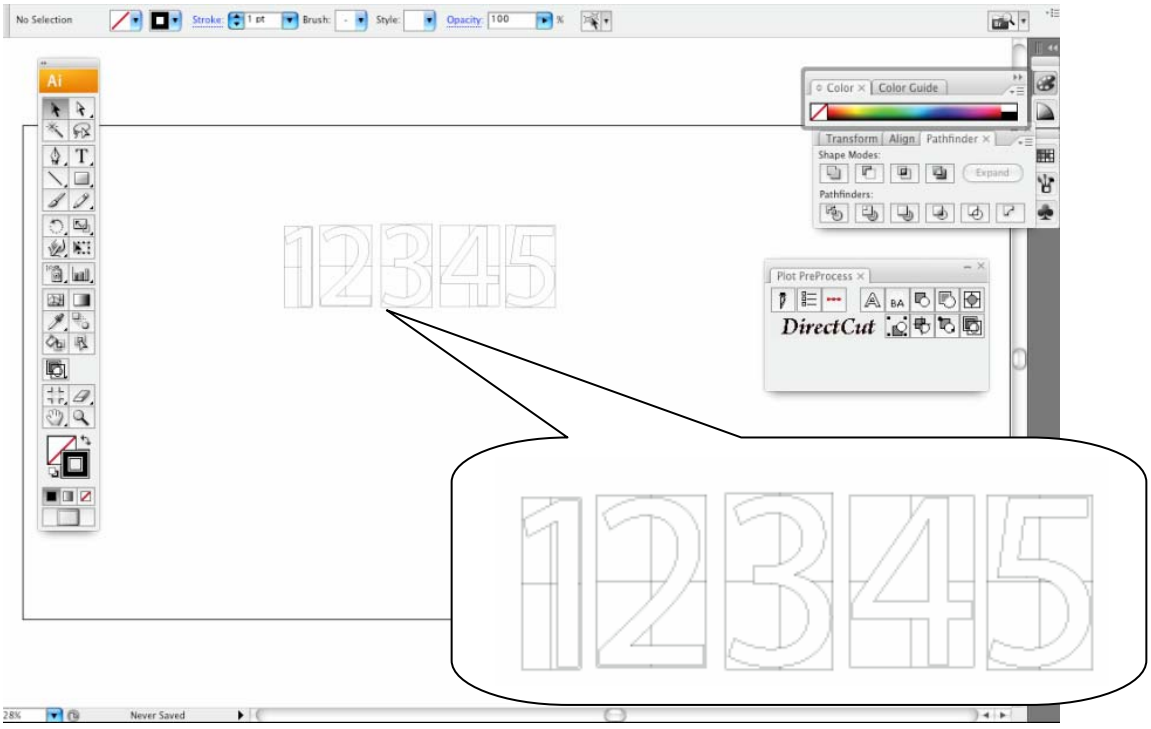
① Choose the graphic for which you want to create peel-off tabs.

② Choose the Make rip command.

③ Determine the width of the peel-off tabs and the number of horizontal and vertical slips.

<<Finished>>





* If you want to use the previous setting as it is, you need to shift-click.

*This command creates peel-off tabs on large objects, enabling users to peel them off from the materials easily.

[Split plot data]

Creates overlaps ("flaps" to be pasted together) and auto-split lines when splitting up an output. This command divides a large object into several segments when cutting. These segments are then combined to create the entire image.

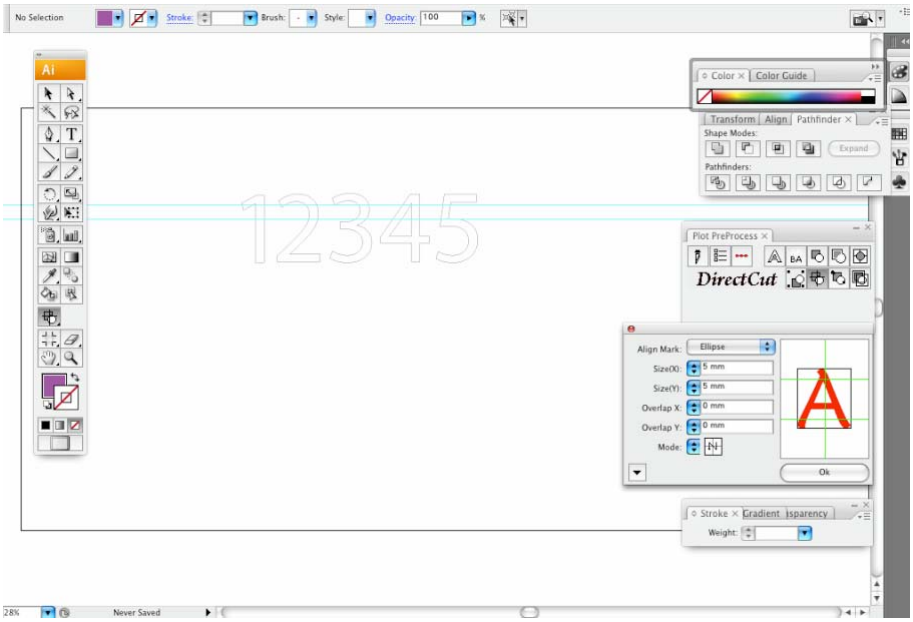
① Choose the graphic that you want to split up.

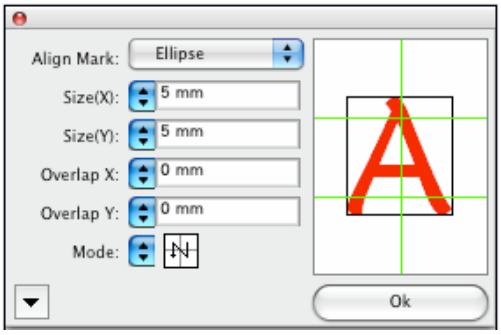
② Choose the Split plot data tool.

③ Click on the position where you want to split the data. Shift-clicking at this point will split the data vertically on the screen, while normal clicking will do so horizontally.

④ Split lines appear.

⑤ Determine the shape and the size of the flaps in the dialog box.





[Align mark]

Determines the shape of the flaps.

[Size X/Y]

Enter the size of the flaps in proportion to the split line you have created.

[Overlap X/Y]

Enter the width of flaps to be overlapped.

[Mode]

Determines the sequence of source data.

⑥ Click OK.

When you switch to another command, DirectCut finishes splitting the output data.

[Difference between the results depending on the sequence]

[Check and make new start point]

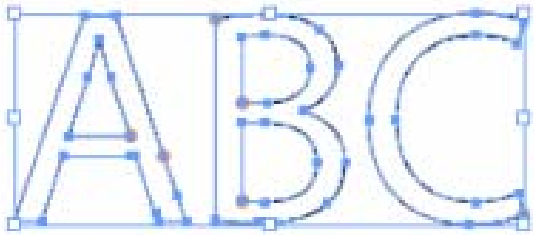
Allows you to confirm or modify the start point when outputting to your plotter for specified cutting environments. You can also adjust the start point of your object through this command.

① Choose the Check and make new start point command.

<<An orange dot will appear on each path>>

② Click on the path to change the start point.

First, move the mouse pointer to the center of the orange dot. The pointer's appearance will change to .



This shape represents the current start point.

Next, move the mouse pointer onto the path itself. Click when the pointer's appearance changes to . An anchor point will be added to the path, and the position where you clicked will become the new start point.

[Check group information]

① Choose the Check group information command.

② Drag from the point you like and you can see how your objects are grouped as below:

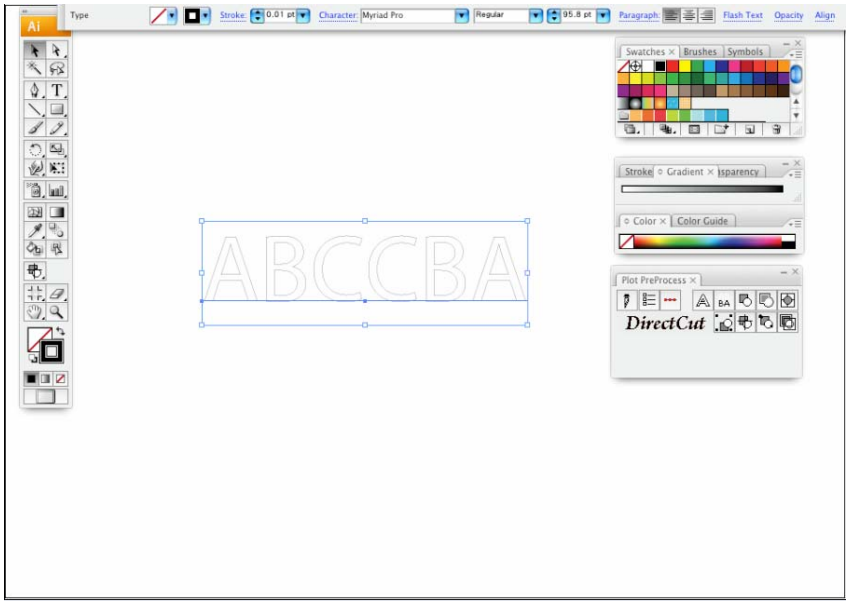
* In step ②, dragging while pressing the Shift key enables you to zoom.

[Invert word]

Creates vehicle letterings.

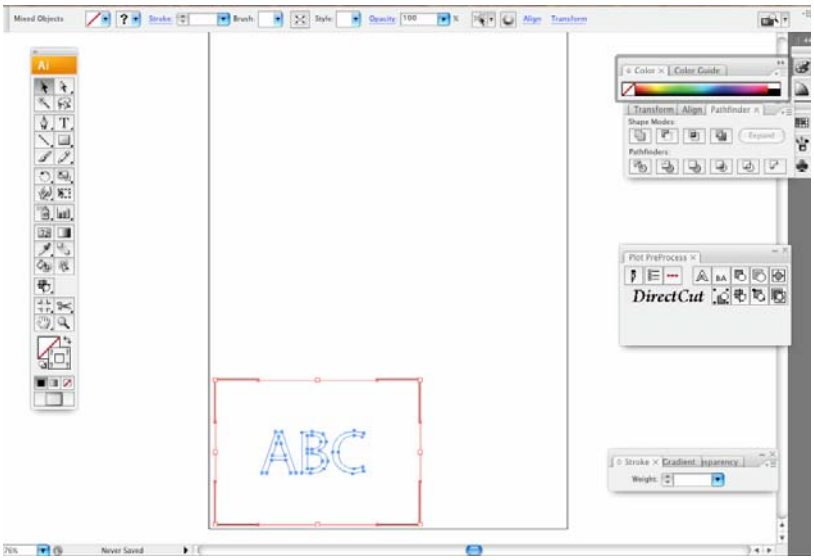
① Choose the letters that you want use to make vehicle letterings.

② Choose the Invert word command.

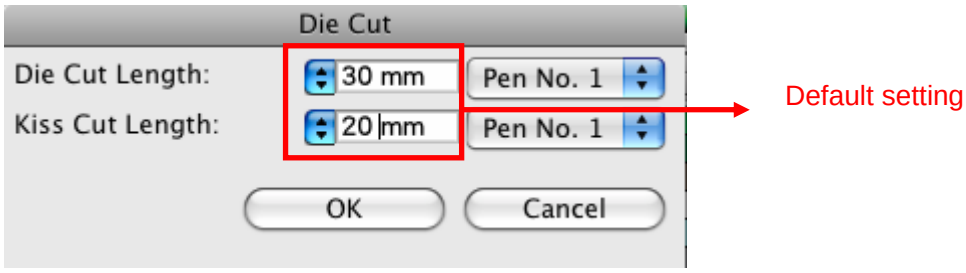


[Die cut]

Select the image you would like to output

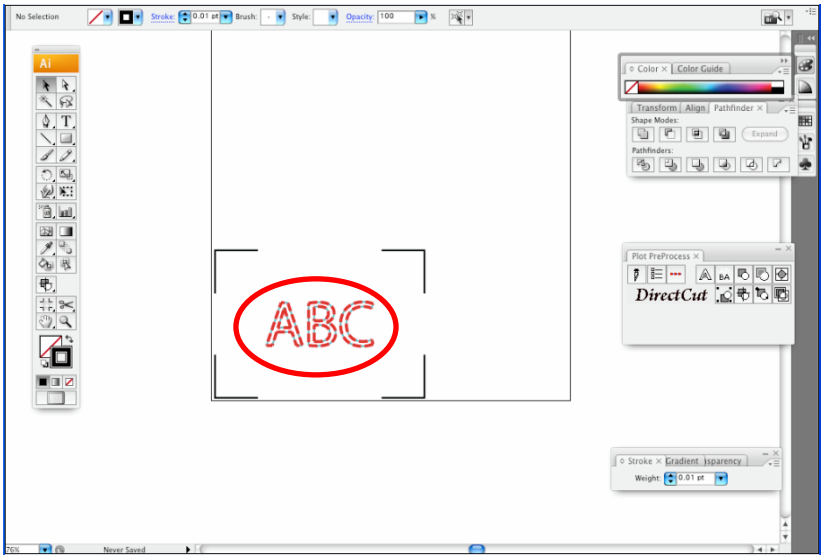


Select the “Die cut” command and adjust “Die Cut Length” and “Kiss cut Length” and then click “OK”.

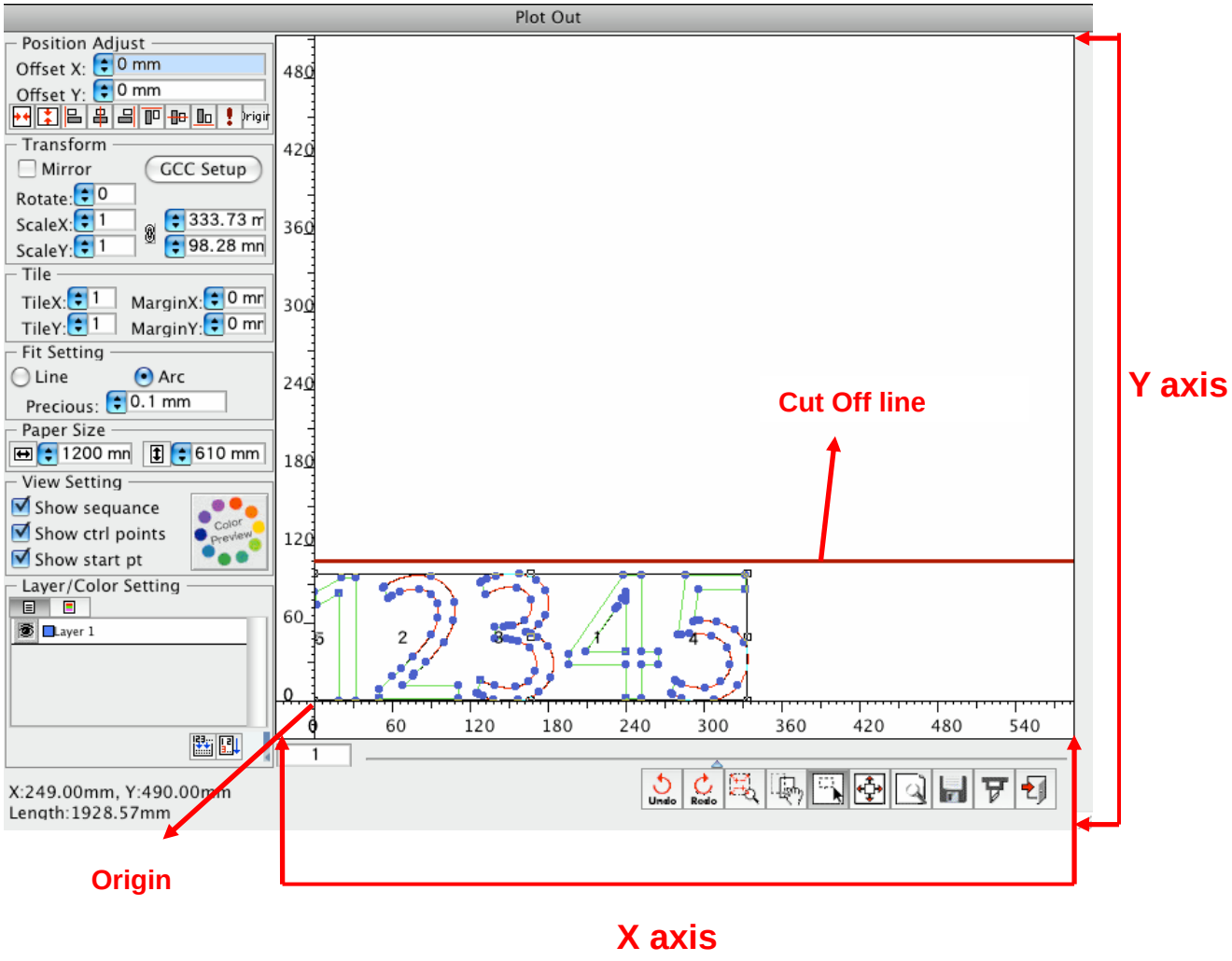


Note: Pen No.1 and Pen No. 2 will be applied alternately when the cutting plotter is in motion.

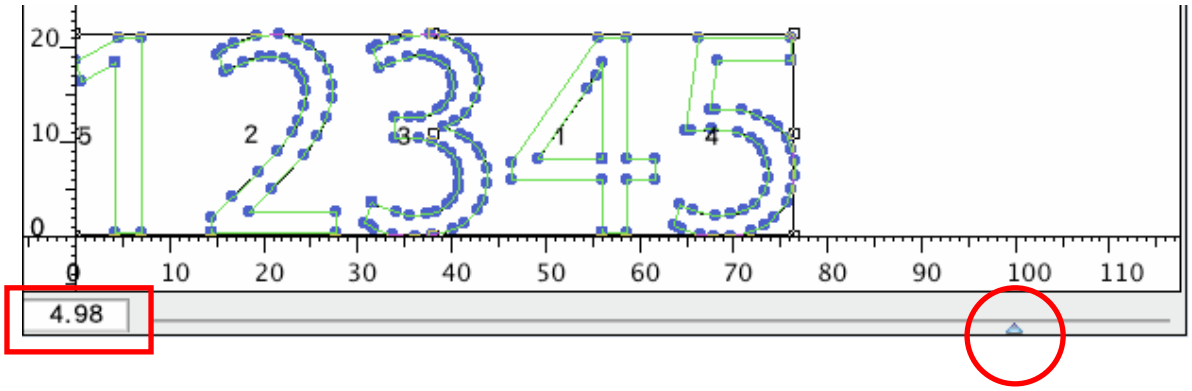
The Die Cut and kiss cut lines will then be added to your object as shown below:



4. Plotter Output



You can zoom in or zoom out by dragging the triangle below the ruler or changing the value in the small box on the bottom left corner.



[Plotter output]

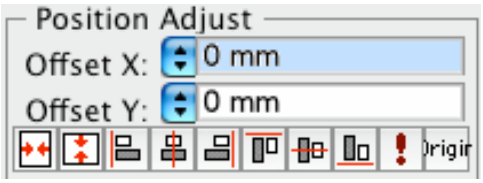
Displays the output data that has already been processed and confirmed on the layout screen of DirectCut.

① Choose the graphic that you want to output.

② Choose the Output command.

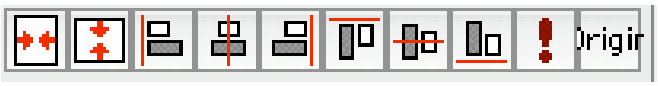
<<The dialog for output appears>>

[Position Adjust]



[Offset X] / [Offset Y]　Numerically determines where on the sheet to output.

Starting from the left, the nine buttons are:



[Center X]　Moves the position of the selected graphic horizontally to the center of the plotter area.

[Center X]　Moves the position of the selected graphic vertically to the center of the plotter area.

Click on [Best Fit tools] to show the entire object.

[Align left]

Aligns all the selected graphics to the far left of its graphic group.

[Align X center]

Aligns all the selected graphics to the horizontal center of its graphic group.

[Align right]

Aligns all the selected graphics to the far right of its graphic group.

[Align top]

Aligns all the selected graphics to the top edge of its graphic group.

[Align Y center]

Aligns all the selected graphics to the vertical center of its graphic group.

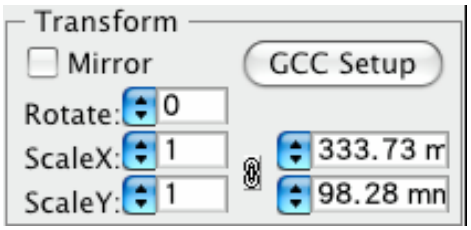
[Align bottom]

Aligns all the selected graphics to the bottom edge of its graphic group.

[AutoGroup]

Maximize paper space utilization on the basis of a rectangle circumscribed about the graphics.

[Transform]



[Mirror]

Inverts a graphic on the y-axis.

[Rotate]

Rotates a graphic by 90 degrees clock-wisely at a time on the center of its circumscribed rectangle.

[Scale X] / [Scale Y]

Expands or contracts a graphic in the direction of the x- and y-axes. You can either enter a magnification value or directly specify the final size. The chain icon being pressed down indicates the original size, while not being pressed down indicates that scaling has occurred.

* Entering the final size always scales the graphic up or down.

[Tile]

[Tile X] / [Tile Y]

Copies the selected graphic in the direction of the x- or y-axes.

[Margin X] / [Margin Y]

Determines the space between the graphics that are copied in the direction of the x- or y-axes.

[Fit setting]

[Line] / [Arc]

Determines whether to output any layout data including curves by either fine straight lines or by arcs. If you set it to Arc, your output device will operate more smoothly. Please note that neither setting affects cutting speed.

[Precious]

Determines the approximate accuracy for a path. Decreasing the value will increase the approximate accuracy, and vice versa. Increasing the accuracy will slow down the output speed, and vice versa.

[Paper size]

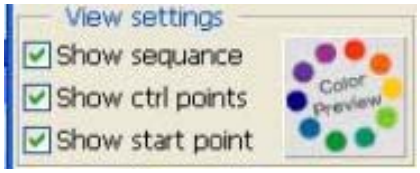
Paper size is already set to the value that you chose at "Plotter Setup," but you can change it by entering other values here. However, you cannot enter a higher value than the one you specified at "Plotter Setup."

This function automatically scans the plotter size.
* At "Plotter Setup," make sure to set a value higher than the original plotting area of your plotter. If you specify a value lower than the original plotting area of your plotter, this button will be disabled.

* The auto-scan is available only for HP-GL.
* This function is only available for plotters which have an auto-scan function.

* Before you use the auto-scan, you need to set a sheet on your plotter to get it ready for cutting. Make sure that the plotter is scanning the sheet size.

[View settings]



Changes the appearance of the preview screen to the right of the Plotter output dialog.

[Show sequence]

Shows or hides the output sequence.
To show, click the Show sequence check box.

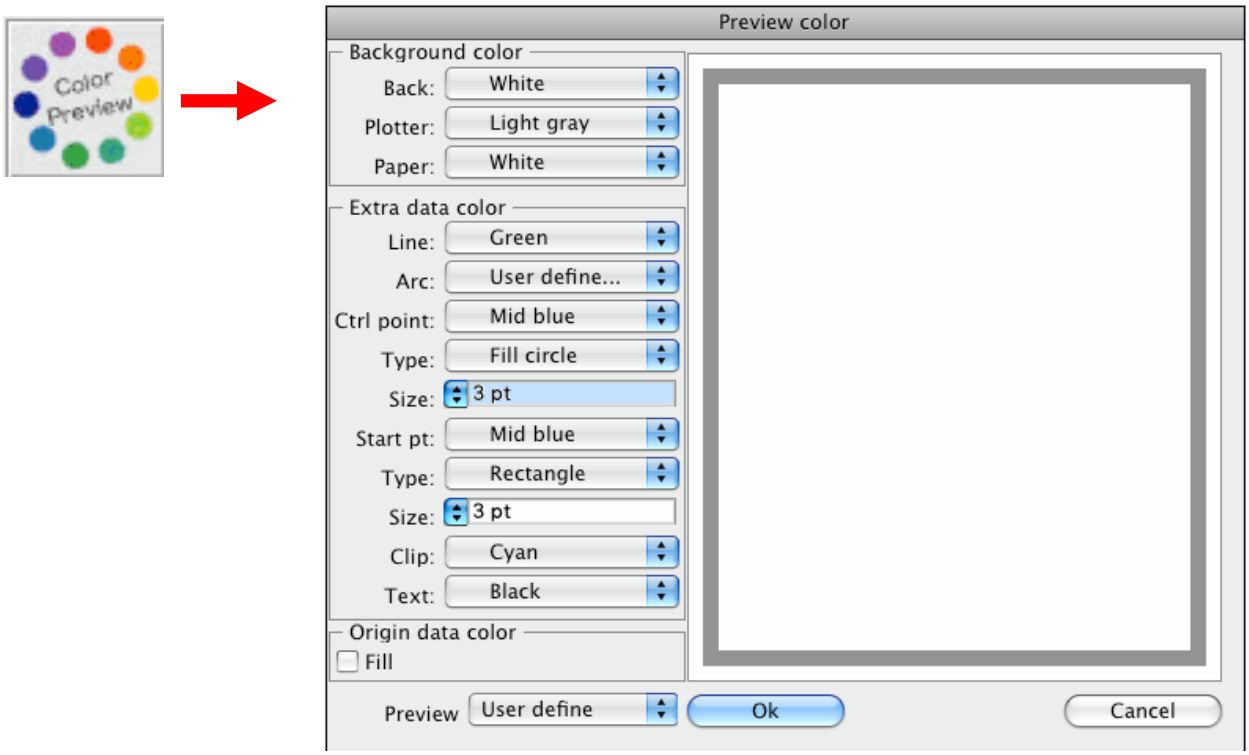
[Show ctrl points]

Shows or hides the control points.
To show, click the Show ctrl points check box.

[Show start points]

Shows or hides the output start points.
To show, click the Show start points check box.

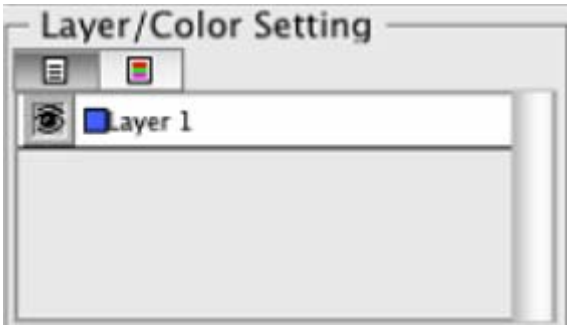
[ColorPreview]



The Autosort is processed for each layer or color. In the case of Figure 1, Layer 1 and Layer 2 will be sorted separately. If the layers are broken down by color as shown in Figure 2, sorting will be performed separately for each of the three colors.

"ColorPreview" allows you to set in detail the color information (background, screen display) for the preview screen and so on. You can also configure user customization.

[Layer / Color setting]



Controls the function for outputting your data for each layer or color.

<Layer view> <Color view>

Allows you to toggle between show and hide. In the left figure, Layer 1 is hidden while Layer 2 is shown. The hidden data is not outputted.

As shown in the left figure, you can change the output sequence by dragging each entry arranged by layer or color. If you arrange the entries in the way shown in the left figure, the output sequence becomes Layer 2 -> Layer 1.

Double-clicking an entry name will open the dialog shown below, where you can specify a pen for outputting and give detailed instructions for preprocessing and postprocessing.

[Autosort]

Rearranges automatically the output sequence by the shortest cut.

[Manusort]

Rearranges the output sequence in ascending order by specifying the inside of a group. Specifying the outside of the graphics will finish manual sorting.

[Exchange sort]

Specifies two groups in order to alternate their output sequence.

* Manual sorting and Exchange sort will be performed separately for each layer or color that is currently selected. For example, if you perform manual sorting with Layer 3 selected as shown in Figure 3, the preview screen will display only the elements of Layer 3. If none of the layers are selected, the top layer (e.g., Layer 3 in Figure 3) will be the target for manual sorting.

[Undo]

Cancels the current operation on [Plotter Output] and goes back to the previous one.

[Redo]

Restores the canceled operation.

[Zoom tools]

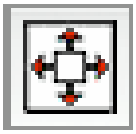
Dragging from top left to bottom right with your mouse will scale up the data within the selected area, while dragging from bottom right to top left will scale down the data. Simply clicking on the data will reset the magnification to "x1."

[Move tools]

Allows you to grab the paper and move it to other positions by dragging.

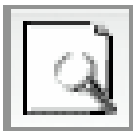
[Select tools]

Selects the object in the preview screen. The selected data turns green. You can either rubber-band select multiple object by dragging or select each single objects by clicking. To deselect the object that you have selected, just shift-click it.



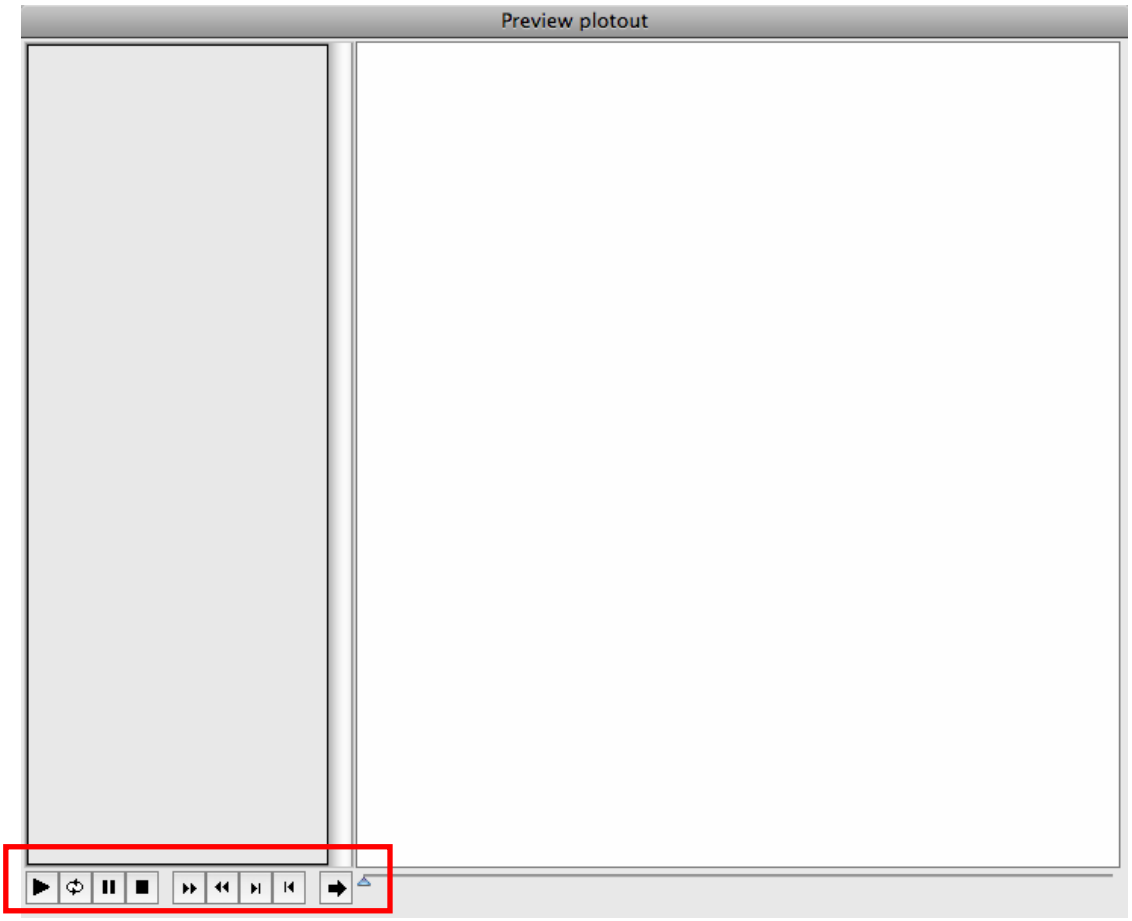
[Best fit tools]

Displays all the graphics at once within the domain of the preview screen.



[Plot preview]

Allows for on-screen simulation of the commands and the behavior that DirectCut will output.



The instruction of the ten commands above is given below:

Plot Preview下的功能:
[Play]

Starts simulation. * To replay, click this button and then click it again.

[Loop]

Repeats playback until you click the Stop button or the Exit button.

[Pause]

Pauses simulation. To resume the simulation, press this button again.

[Stop]

Exits simulation.

[Fast]

Each time you press this button, the simulation will speed up.

[Slow]

Each time you press this button, the simulation will slow down.

[Step forward]

Moves the plotter command forward by one step.

[Step backward]

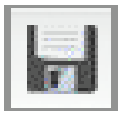
Moves the plotter command back by one step.

[Exit]

Closes the dialog for output simulation.

[Slider]

You can use this to move the plotter command forward or back.



[Make plot file]

Allows you to name the output data file and save it.

[Export]

Allows DirectCut to output to your output device.

[Exit]

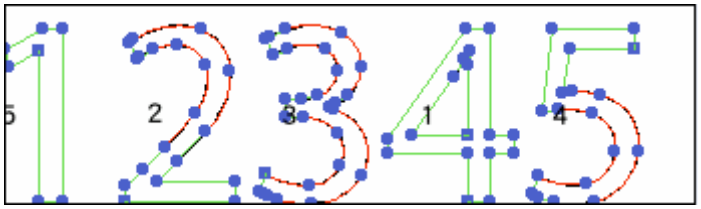
Closes this dialog.

[How to operate preview screen]

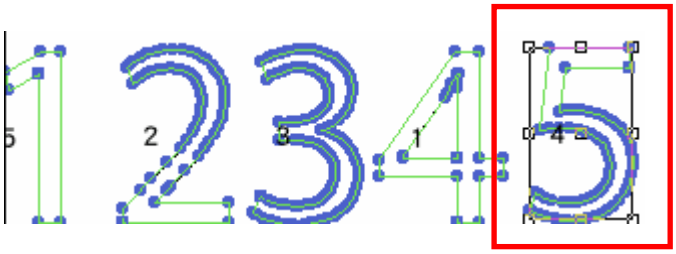
The graphic that you selected with the Select button is displayed with its circumscribed rectangle and nine control points.

If you hold the eight control points on the four sides of the rectangle and drag them, you can expand or contract the graphic. If you drag them while pressing the Shift key, you can scale the graphic vertically or horizontally at a constant ratio.

If you hold the control point at the center of the rectangle and drag it, you can move the graphic to any position. If you drag it while pressing the Shift key, the direction in which you move it will be fixed at vertical, horizontal, or 45 degrees.



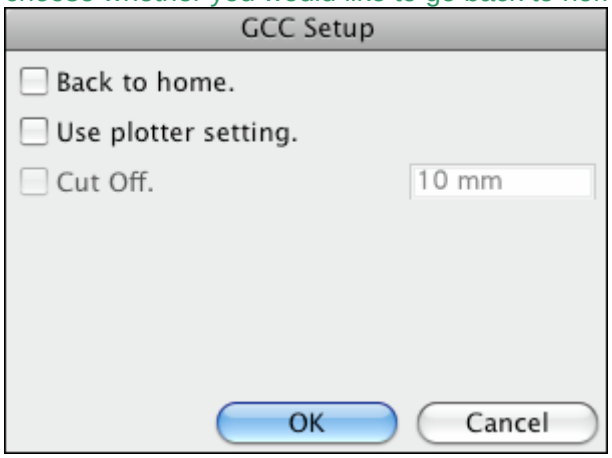
Nothing is selected



Elements are selected.

[GCC Setup]

Click on the [GCC Setup] command and the dialogue below will show up where you can choose whether you would like to go back to home or use plotter setting.



5. Troubleshooting

The DirectCut menu cannot be added

Question: The DirectCut menu and tools have not been added to Illustrator though it starts up all right.

Answer:

① Something may have gone wrong when you installed DirectCut. Please refer to the " Installation Procedure".

② Choose the File menu > Preferences > Plug-in/Virtual storage disk, and please make sure that the location indicated in the "Plug-in folder" field is the same as that of Illustrator's plug-in folder.

③ The serial number you entered may be wrong. Please confirm the number and enter it correctly.

On output

Question: When I press the Exoprt button, the message, nothing happens.

Answer:

① The choice in the Port field of "RS232 setup" is wrong. Choose the port to which a cable is currently connected.

② For the Macintosh version, please make sure that the port set for AppleTalk is not the same as the choice in the Port field of "RS232 setup"

Question: My plotter doesn't respond at all if I press the Export button.

Question: My computer freezes if I press the Export button.

Question: An error occurs in my plotter if I press the Export button.

Answer:

① Please check again if the cable is connected properly.

② The data transfer criteria may not be appropriate. Please check each transfer criterion in the "Plotter setup" as well as the "Language" setting.

③ Is the currently connected cable an original product or a recommended product of your output device's manufacturer? Commercially available cables may cause a malfunction. Please check with the manufacturer of your output device.

Question: The outputted data is bigger or smaller than the original.

Answer: The "Step" setting in the Plotter setup menu is not in tune with your plotter's step size. Try to match the software's setting and the plotter's setting.

DirectCut Mac AI Plug-in is compatible with MAC OS X 10.4-10.5.4, 10.5.7-10.6.3 (operated with Adobe Illustrator CS3-CS5.

Puma III Specification

Model Name/No.	P3-60	P3-132S
Operational Method	Roller-Type	
Max. Cutting Width	590mm(23.23in)	1300mm(51.18in)
Max. Cutting Length	50m(164ft)	
Max. Media Loading Width	719mm(28.3in)	1470mm(57.87in)
Min. Media Loading Width	50 mm(1.97in)	
Acceptable Material Thickness	0.8mm (0.03 in)	
Number of Pinch Rollers	2	4
Motor Drive	DC Servo Control	
Cutting Force	400 g	
Max. Cutting Speed	Up to 600 mm /sec (23.62 ips)	
Offset	0~1.0 mm (with an increase of 0.025 mm)	
Mechanical Resolution	0.009 mm (0.00035")	
Software Resolution	0.025 mm (0.00098")	
Distance Accuracy	±0.254 mm or ±0.1% of move, whichever is greater	
Repeatability	±0.1mm up to 3 meters (* certified media)	
Memory Buffer	4MB	
Interfaces	USB 2.0 (Full Speed), Parallel and Serial (RS-232C)	
Type of Command	HP-GL, HP-GL/2	
Control Panel	LCD (20 digits x 2 lines), 14 Keys, 1 Power LED	
Dimension (HxWxD) mm	220x 879x258 8.67 x34.61x10.16in	1065 x 1632 x 620 (including stand) 41.93 x62.25x24.41in
Net Weight	13kg / 28.6lb	53 kg / 116.4 lb
Stand	Optional	Standard
Power Supply	AC 100-240V, 50~60 Hz (auto switching)	
Power Consumption	Max.110watts	
Environment Temperature	15℃~35℃ / 60℉~86℉ (operating)	
Environment Humidity	25%~ 75% relative humidity (operating)	

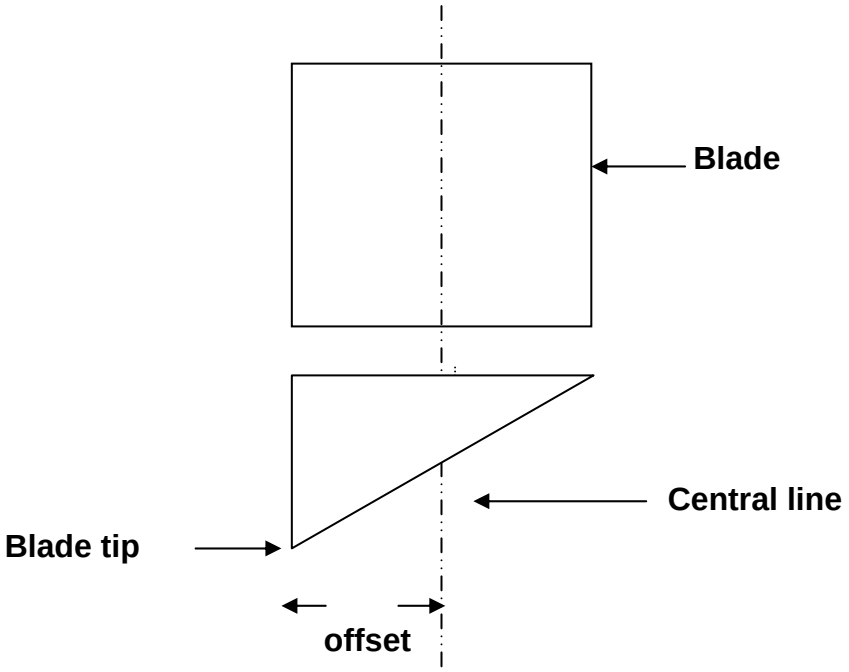
- Compatible with Windows 2000/XP/7/Vista.
- The specification and data sheet may vary with different materials used. In order to obtain the best output quality, please maintain the machine regularly and properly.
- GCC reserves the right to change the specifications at any time without notice.
- The above listed specification values are effective only when operated with media certified by GCC.

Blade Specification

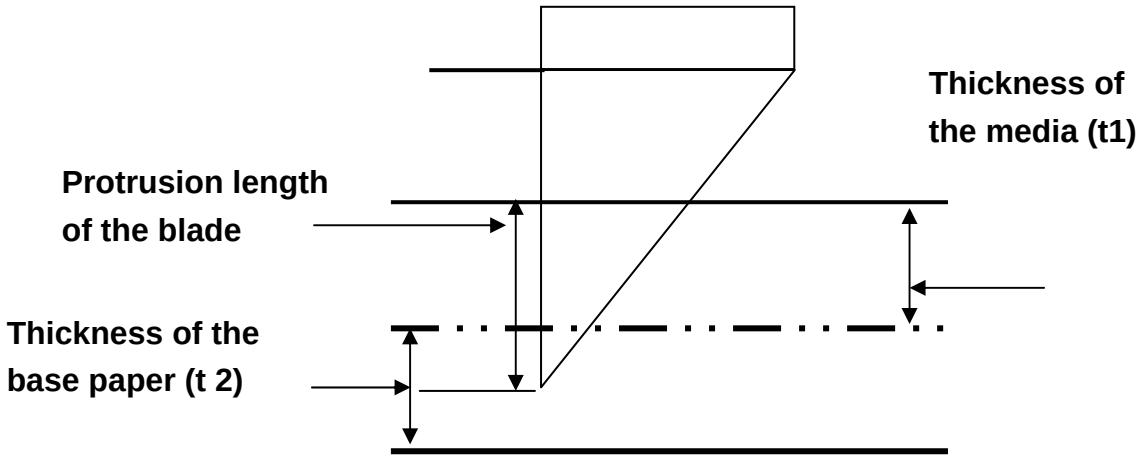
20200159G	For cutting thick fluorescent and reflective vinyl. Also for cutting detailed work in standard vinyl.
	The blade is 45° with **Red Cap**(5-unit package), 0.25 mm offset
265012020G	For cutting reflective vinyl, cardboard, sandblast, flock, and stencil sharp edge.
	The blade is 60° with **Green Cap**, 0.50 mm blade offset
26500059G	For cutting thin sandblast mask and stencil with friction feed or sprocket feed machine.
	The blade is 60° with **Blue Cap**, 0.25 mm blade offset
26500060G	For Cutting small text and fine detail. Sharp blade with smallest offset.
	The blade is 0.175 mm blade offset with **Black Cap**

About the Tool

A generic term referring to the blade that cuts the sheet, the pen that does plotting, and the LED bombsight (option) used for pointing to the reference point.
OFFSET is the distance that the blade tip is displaced from the centerline of the blade.



Protrusion Length of the Blade



Length of protrusion = t1 + t 2/ 2, but for your convenience you may just make it about 0.3mm ~ 0.5mm beyond the blade holder tip.

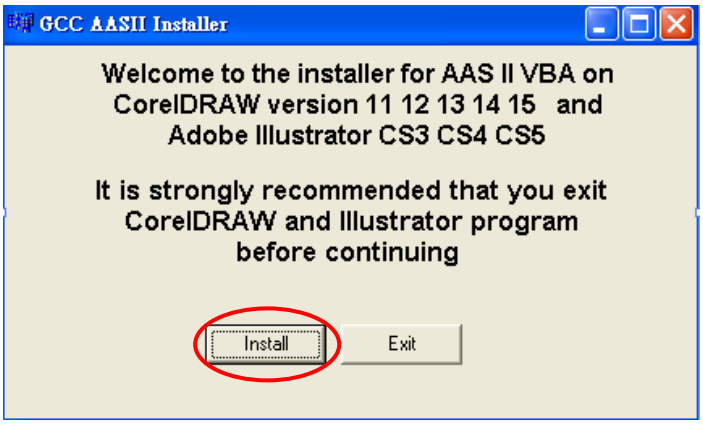
CorelDRAW Plug-In Instruction

AASII VBA Installer is applicable for CorelDRAW Version 11, 12, 13, 14, 15

Installation

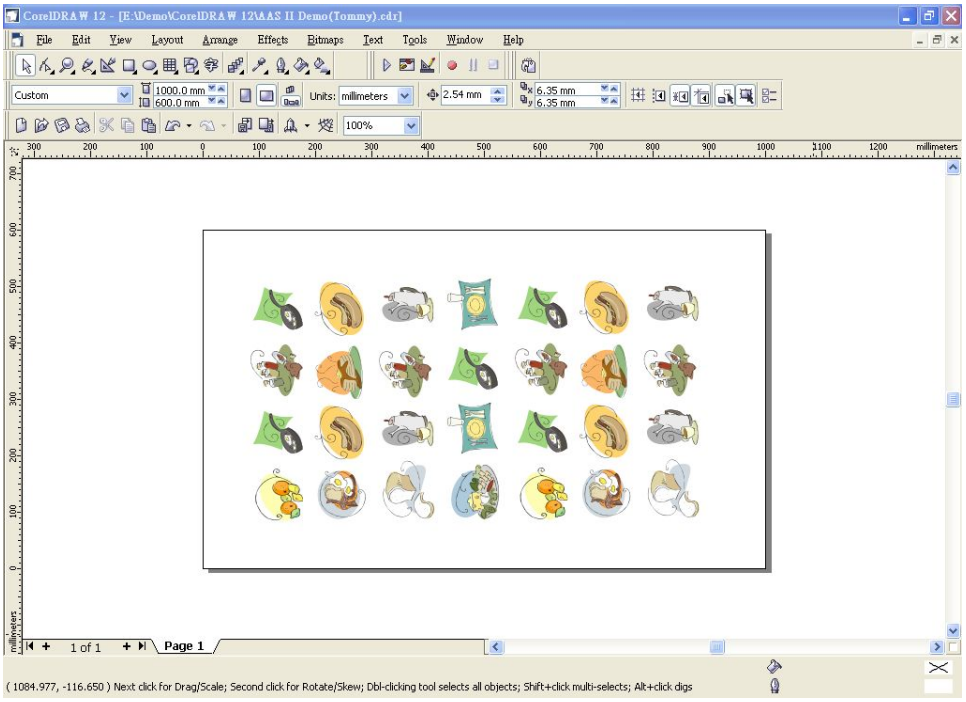
1. Check the “AAS CorelDraw Installer” folder in Puma III Installation CD, and double click the “AASIIVBAInstaller.exe” file to run the installation program.

2. Press the “Install” button to begin installing GCC AASII CorelDRAW VBA.

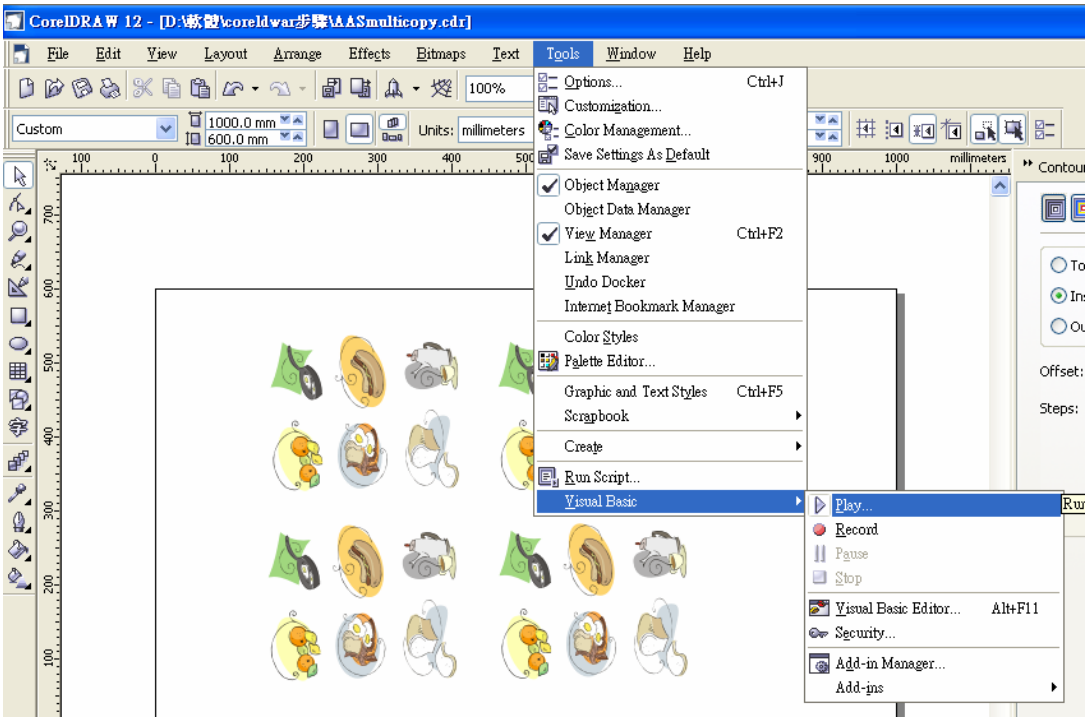

GCC AASII Installer
Welcome to the installer for AAS II VBA on
CorelDRAW version 11 12 13 14 15 and
Adobe Illustrator CS3 CS4 CS5
It is strongly recommended that you exit
CorelDRAW and Illustrator program
before continuing
Install
Exit

User Instructions

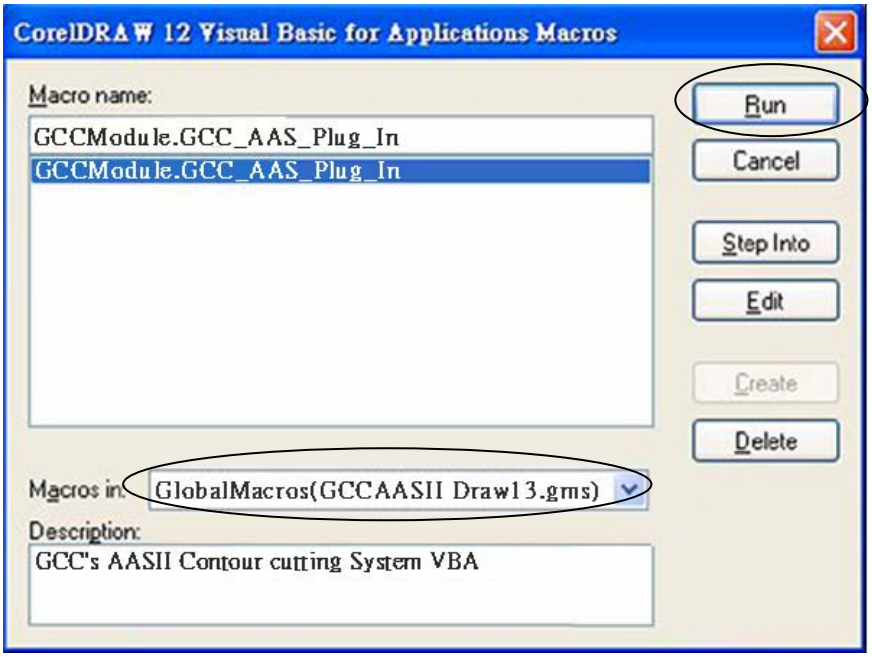
1. Run CorelDRAW to edit your graphics and select all images at once when you wish to plot.


CorelDRAW 12 - [E:\Demo\CorelDRAW 12\AAS II Demo(Tommy).cdr]
File Edit View Layout Arrange Effects Bitmaps Text Tools Window Help
Page 1

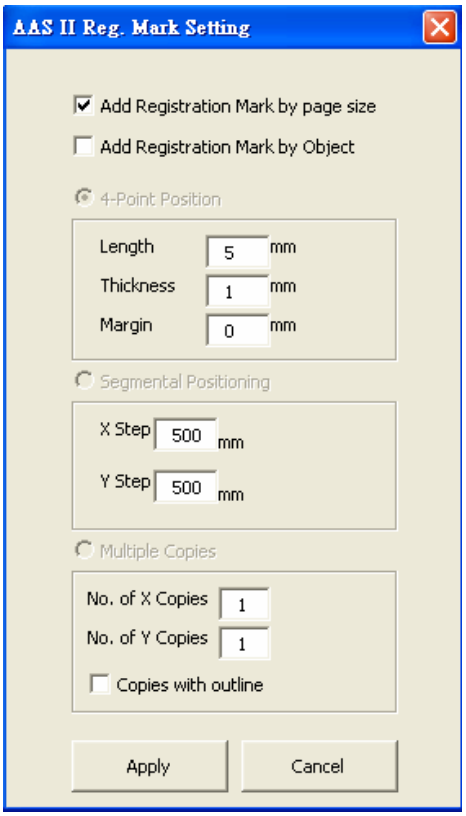
2. Select “Tools→Visual Basic→Play”.



The Visual Basic for Applications Marcos window will pop up. Select Global Macros(GCCAASII_Draw13.gms) under the “Macros in” manual, and press “Run”.



3. Click on “Apply” and select whether you would like to add the registration marks by page size or by object.

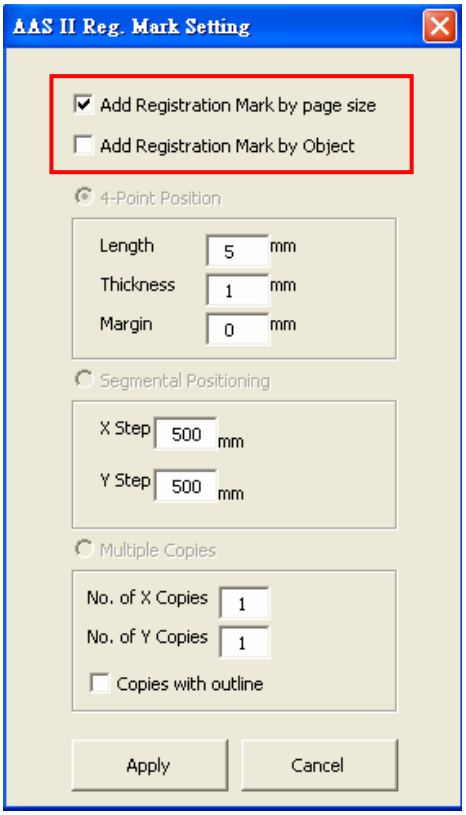


Note: “Add Registration Mark by Object” will be the default selection if you click on the image whereas “Add Registration Mark by page size” will be the default one when the blank area on the page is clicked.

4. Now you can print out the image file with registration marks.

Add Registration Mark by page size

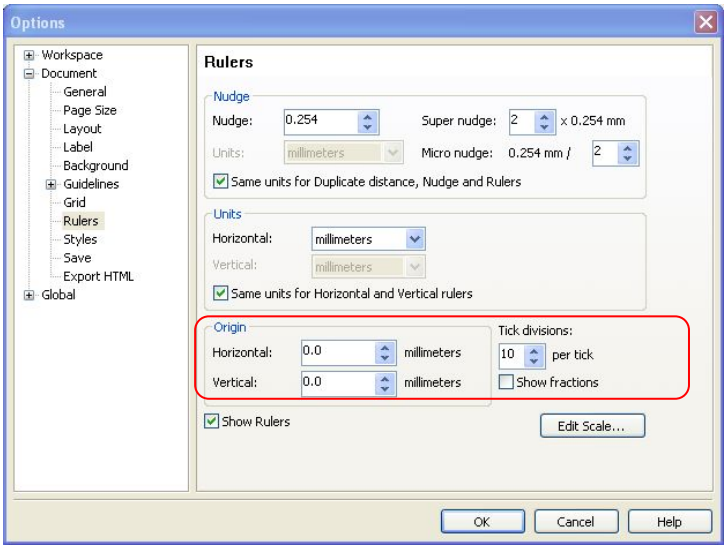
If you tick “Add Registration Mark by page size” as shown in the figure below and click “Apply”, your registration marks will be created automatically.



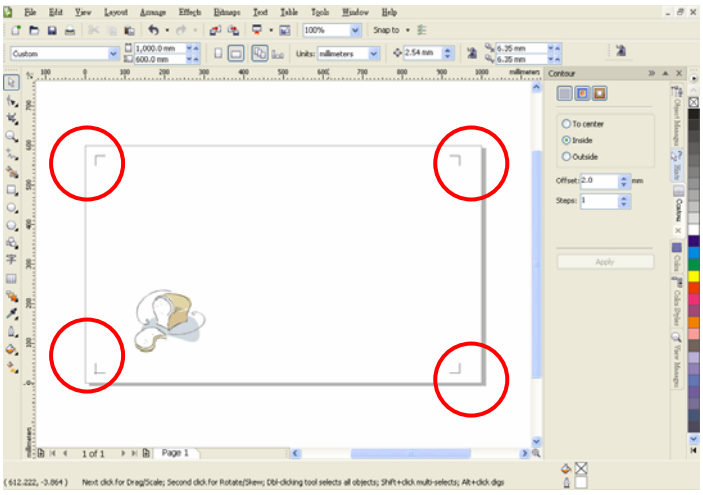
Note:

1. The length setting will be in the range of 5-25mm according to your page size.

2. Please DO NOT make any changes to the “Origin” section when you choose to add registration marks by page size as indicated below otherwise the position of the marks will be changed.

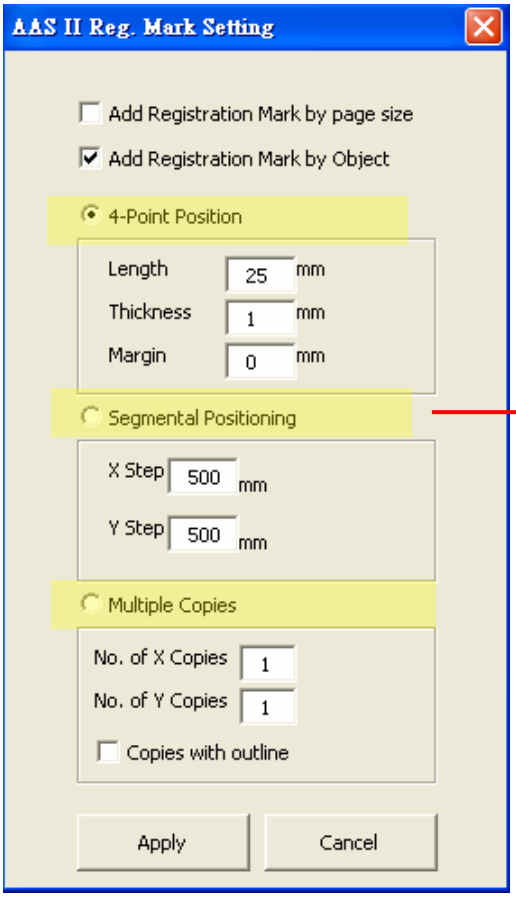


The system will create the 4 marks on the 4 corners of the page as shown in the picture below wherever you move your image.



Add Registration Mark by Object

If you tick “Add Registration Mark by Object”, you will be offered three options of registration marks as shown below.



4-Point Positioning

- Length: The length of marks
  → Range: 5mm~50mm
  → Optimized Setting: 25mm
- Thickness: The line thickness of marks
  → Range: 1mm~2mm
  → Optimized Setting: 1mm
- Margin: The distance between marks and images
  → Range: 0mm~50mm
  → Optimized Setting: 5mm

Segmental Positioning

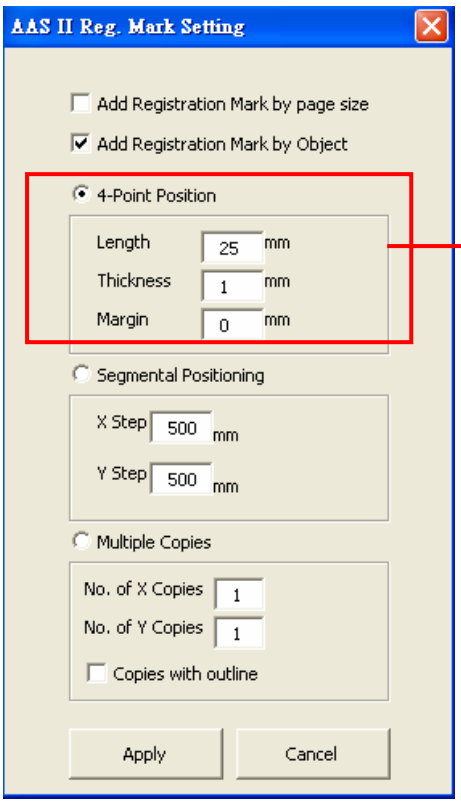
- X Step: The distance of intermediate position on the X axis
- Y Step: The distance of intermediate position on the Y axis
  → Range: 200mm~600mm
  → Optimized Setting: Less than 500mm

Multiple Copies

- No. of X Copies: The numbers of copies on X axis
- No. of Y Copies: The numbers of copies on Y axis
  → Range: 1~50. (The more copies you make, the more time is needed for data transmission.)
  → Numbers of X Copies * Numbers of Y Copies = The total amount of image copies
- Copies with outline： To show outlines of image graphics

Note: The values entered in the “4-Point Positioning” section (length, thickness and margin) will still be applied when you tick “Segmental Positioning” or “Multiple Copies”.

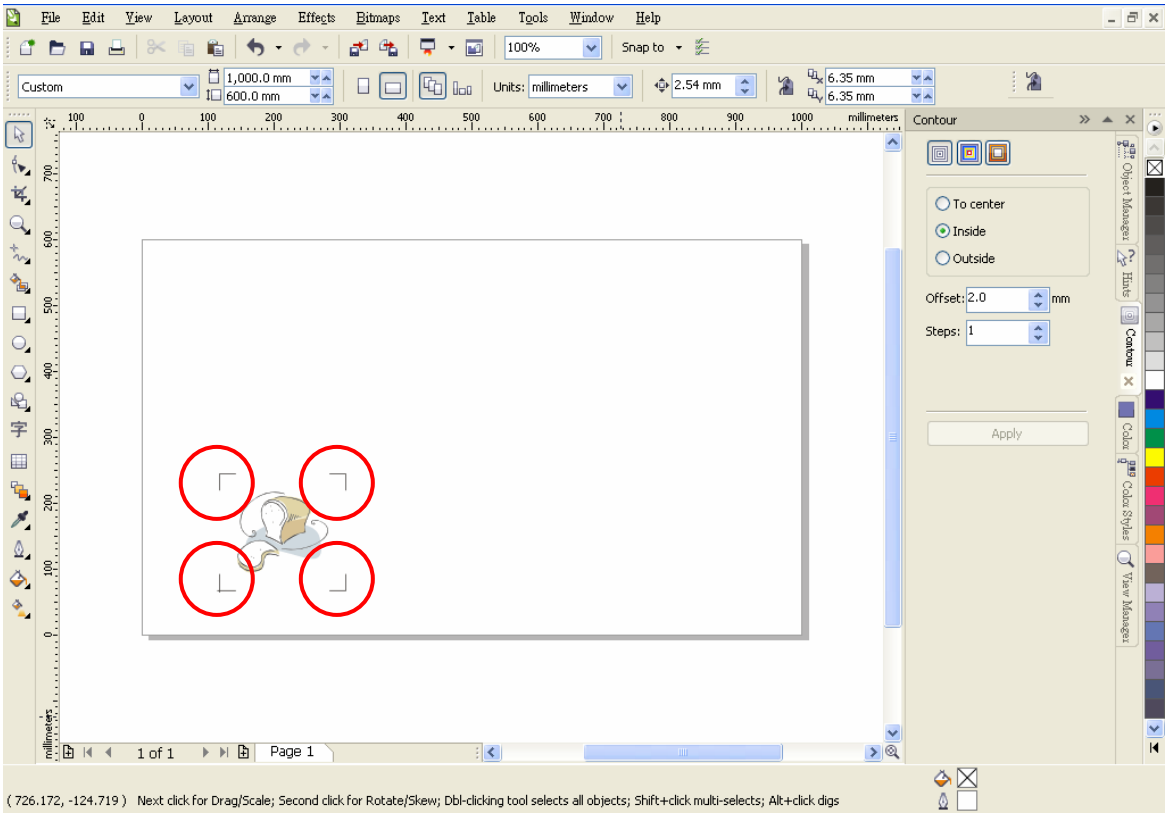
4-Point Positioning



4-Point Positioning

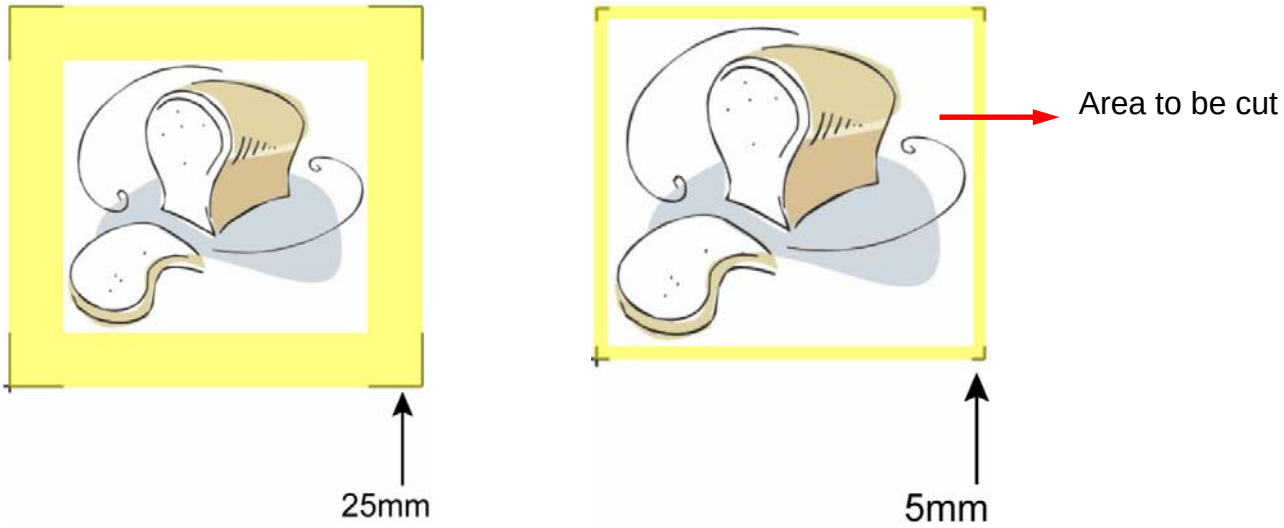
- Length: The length of marks
  - → Range: 5mm~50mm
  - → Optimized Setting: 25mm
- Thickness: The line thickness of marks
  - → Range: 1mm~2mm
  - → Optimized Setting: 1mm
- Margin: The distance between marks and images
  - → Range: 0mm~50mm
  - → Optimized Setting: 5mm

The system will create the 4 marks as shown in the picture below.


File Edit View Layout Arrange Effects Bitmaps Text Table Tools Window Help
Contour
To center
Inside
Outside
Offset: 2.0 mm
Steps: 1
Apply
Page 1
(726.172, -124.719) Next click for Drag/Scale; Second click for Rotate/Skew; Dbl-clicking tool selects all objects; Shift+click multi-selects; Alt+click digs

Note:

1. To save your materials, in addition to amending object margins, you can also adjust the length of the registration marks (5mm minimum) when you apply 4-Point Positioning (see table 1 for suggestions based on different material sizes). The smaller the size is, the smaller the distance between the object and the registration marks is (see the figures below).



Page size (unit: inch)	Suggested mark length (unit: mm)
A6 (4.13 × 5.83)	5
A5 (5.83 × 8.27)	8
A4 (8.27 × 11.69)	11
A3 (11.69 × 16.54)	16
A2 (16.54 × 23.39)	23
A1 (23.39 × 33.11) and above	25*

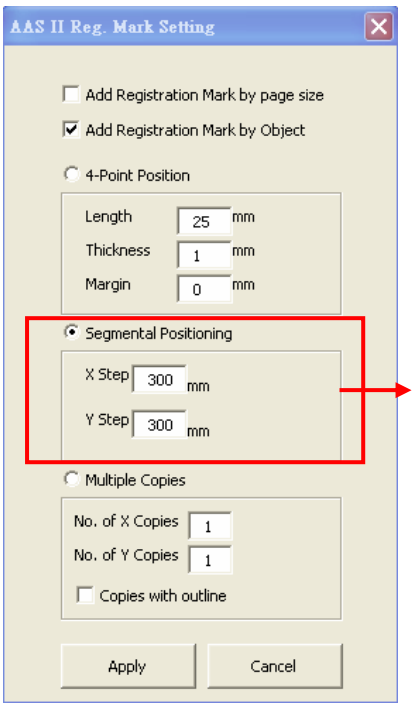
Table 1

*25mm is the suggested value for the registration mark length

2. The size of the registration marks would affect the accuracy of registration mark detection so please make sure the amount you enter is reasonable.

3. If you change the paper size, you will have to reset the registration marks otherwise the previous setting will be applied.

Segmental Positioning

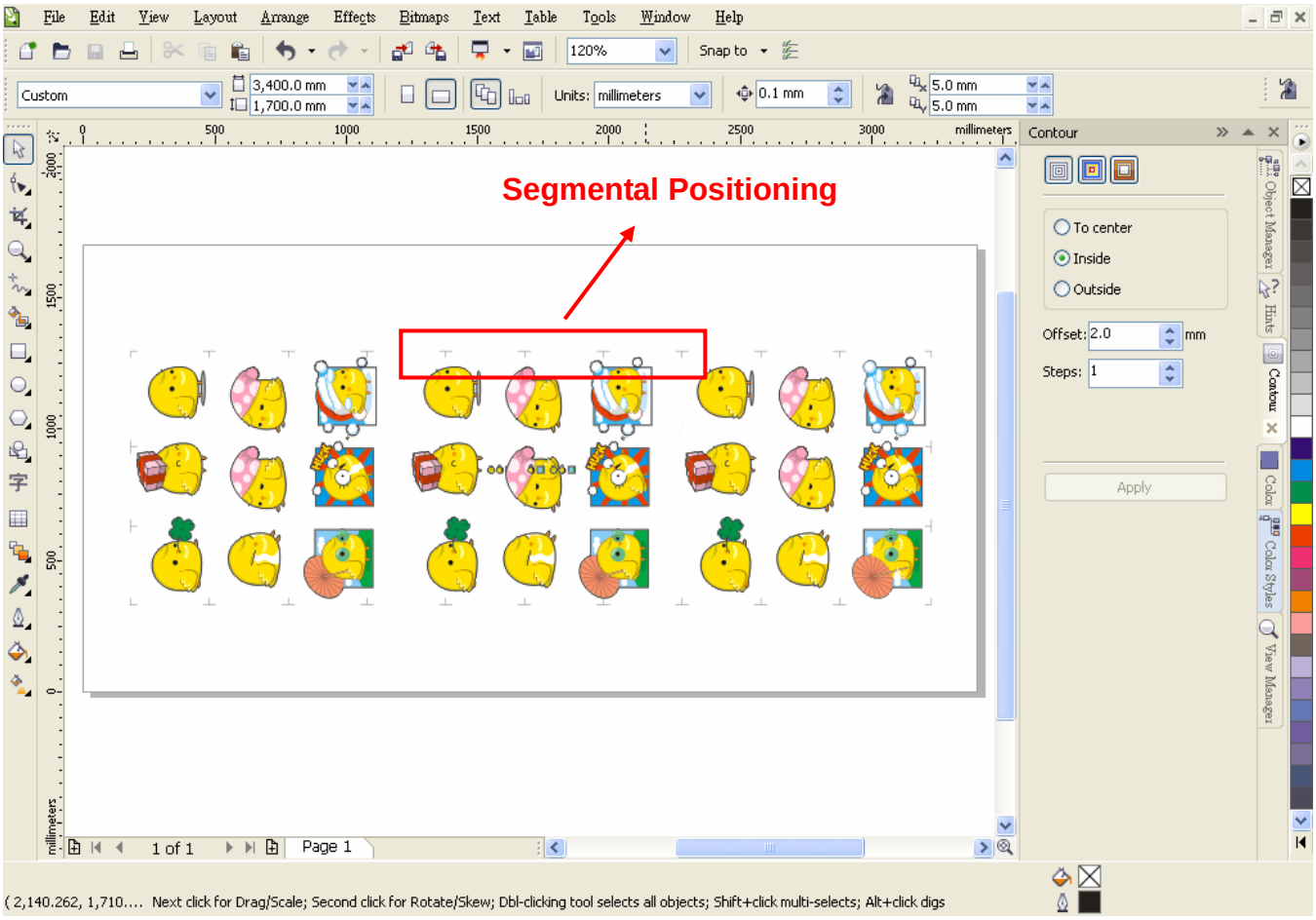


For precise cutting quality, it is suggested to select “Segmental Positioning” when you are working on an extra long or large-sized image to increase cutting accuracy.

Segmental Positioning

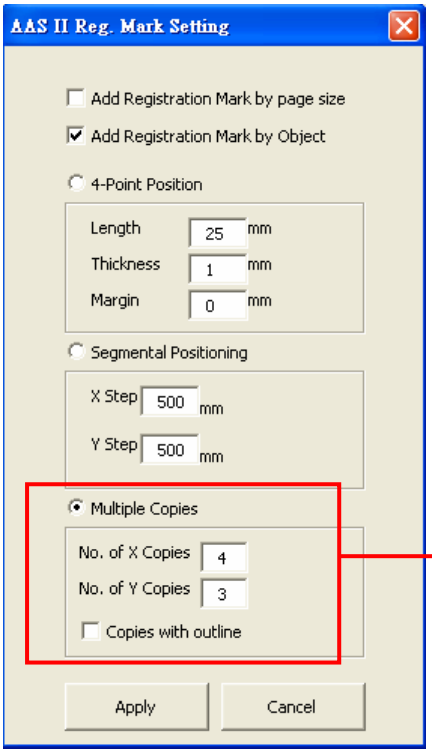
- X Step: The distance of intermediate position on the X axis
- Y Step: The distance of intermediate position on the Y axis
  → Range: 200mm~600mm
  → Optimized Setting: Less than 500mm

The system will create the as shown in the picture below



Multiple Copies

It is suggested to select “Multiple Copies” when you would like to make several copies of one image on your material to increase cutting accuracy.



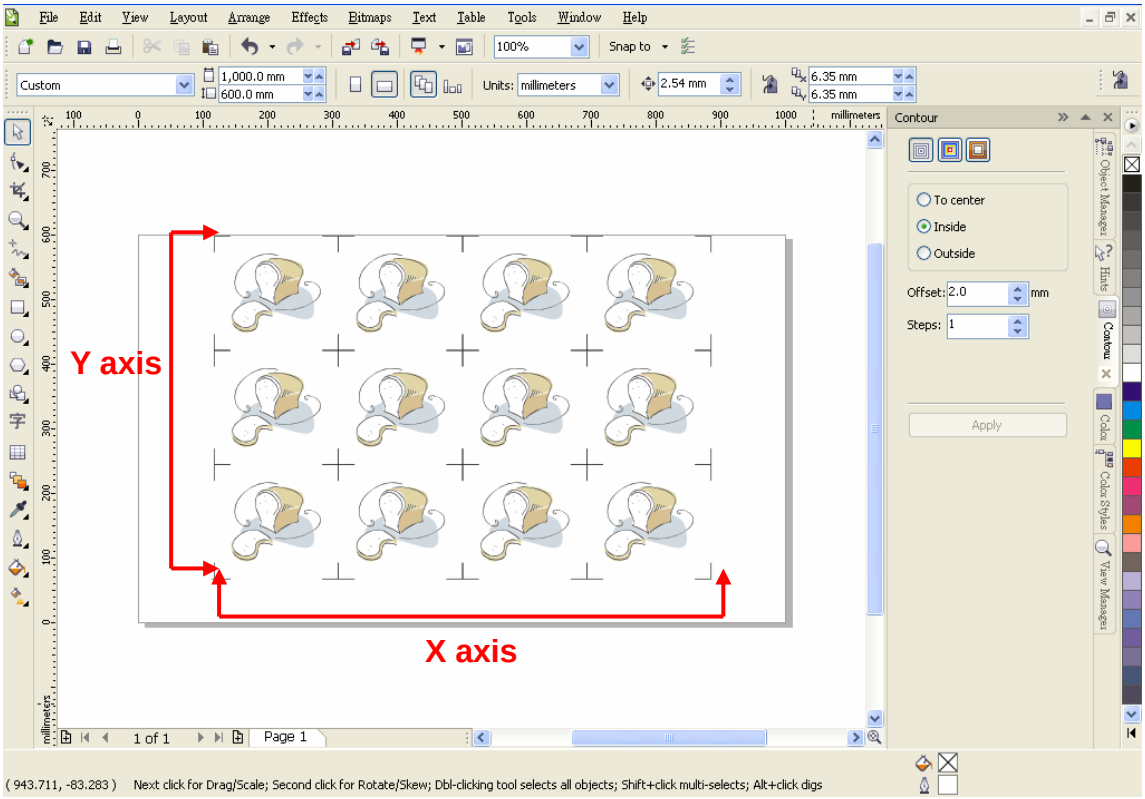
Multiple Copies

- No. of X Copies: The numbers of copies on X axis
- No. of Y Copies: The numbers of copies on Y axis

  → Range: 1~50. (The more copies you make, the more time is needed for data transmission.)

  → Numbers of X Copies * Numbers of Y Copies = The total amount of image copies
- Copies with outline：To show outlines of image graphics

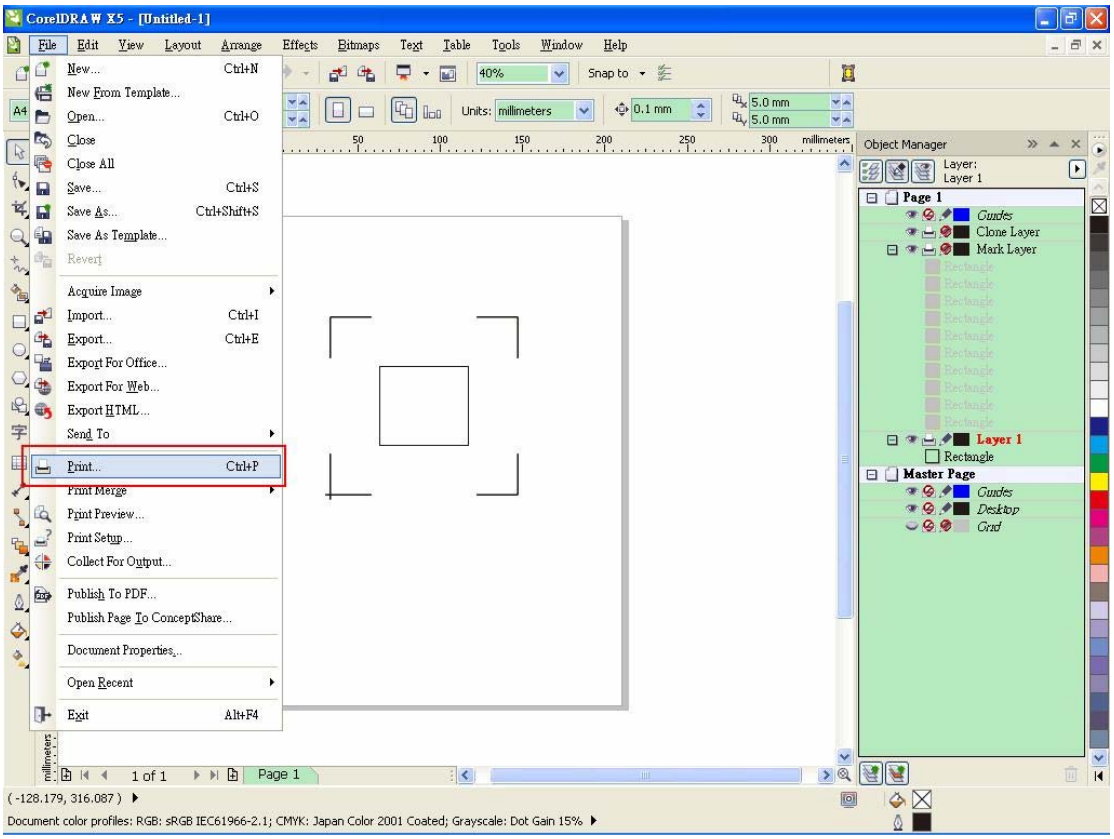
The system will create the as shown in the picture below.



Contour cutting through CorelDraw

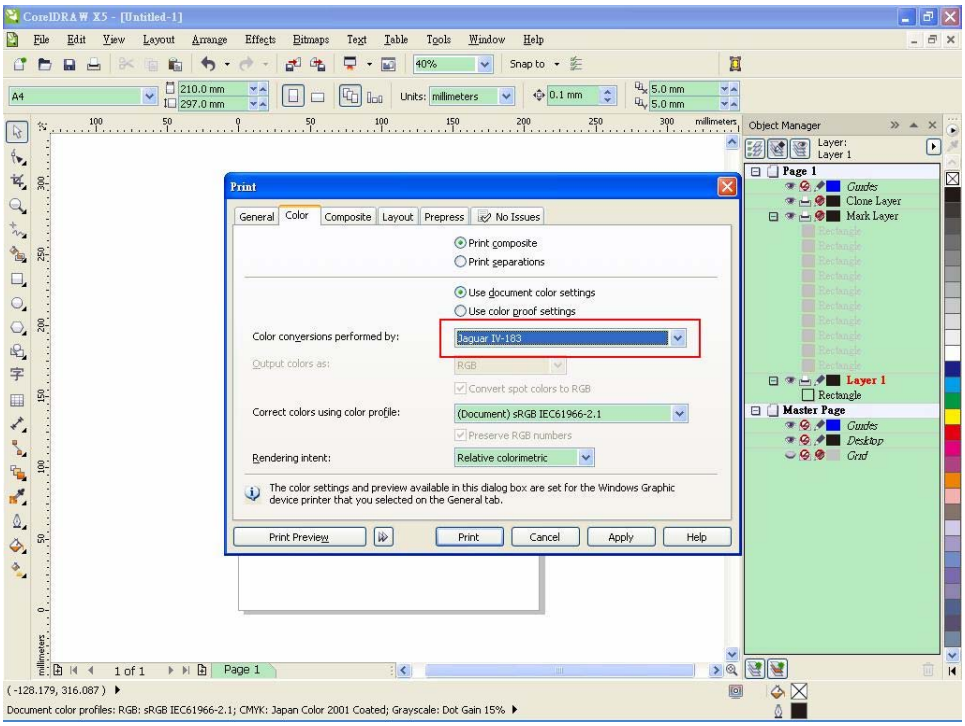
Step 1: Position the paper with registration marks printed by your printer on the GCC cutter.

Step 2: Select “Files→Print”.

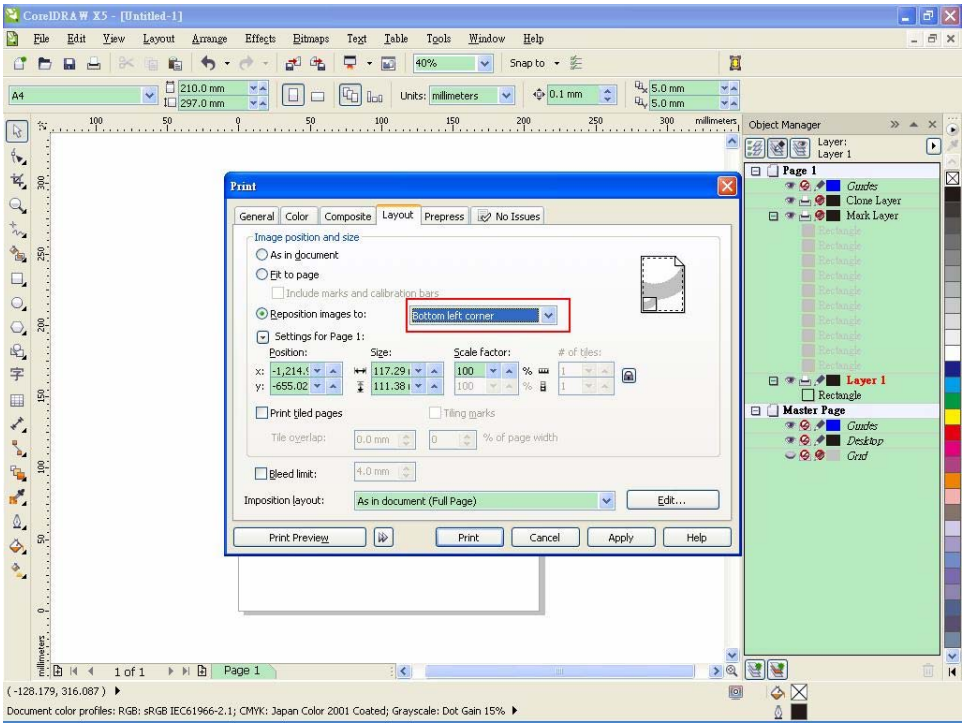


Please note that if you use CorelDraw X5, you must follow the steps below.

Click the “color” page and go to the “Color conversions performed by:” and then select the model name of you cutter.



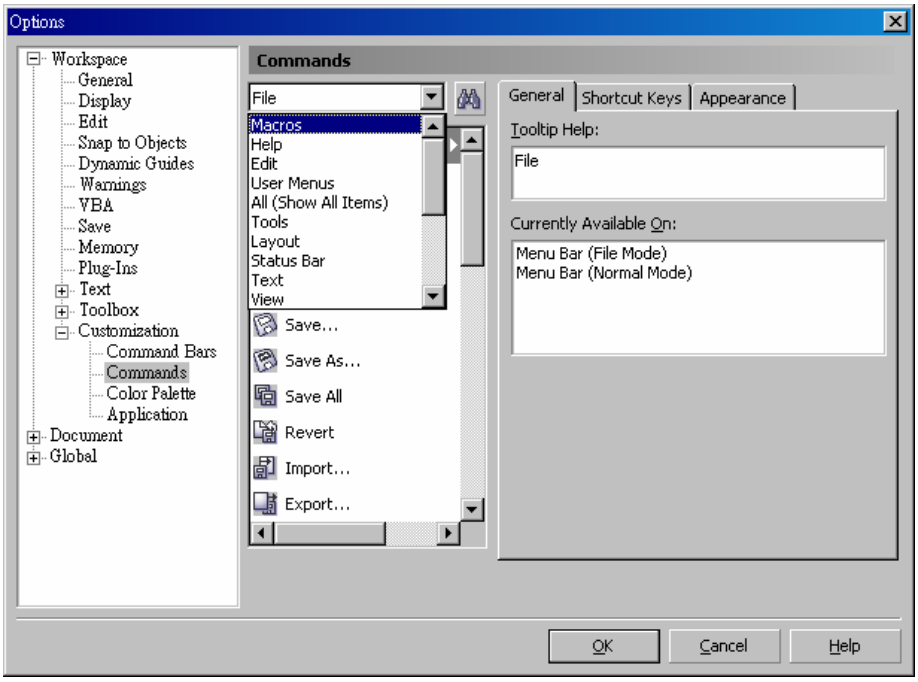
Step 2: Go to the “Layout” page and select Bottom left corner at “Reposition images to”.



Step 3: Click “Print”.

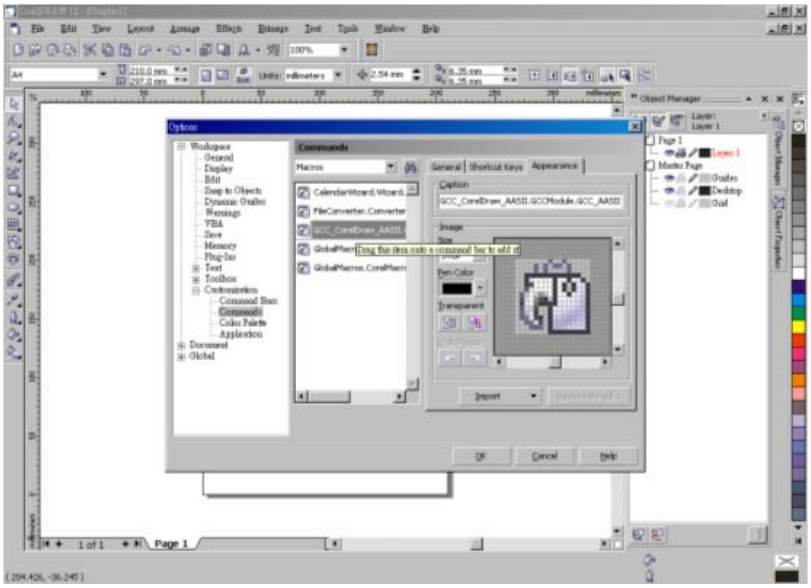
You can also add a Hot Icon for the AAS II Plug-in

Step 1: Select “Tools→Customization→Commands→Macros”.



Step 2: Choose【GCC_CorelDraw_AASII.GCCModule.GCC_AASII】and drag it to the "commands" bar.

Step 3: If you want to have a different icon, select "Tools→Customization→Commands→ Appearance" to import a graphics for use as the icon. Choose an icon and press OK to complete this setting.



SignPal 8.5 Instruction

The new SignPal 8.5 Software is Windows System compatible and the SignPal Expert above versions support the AAS II contour cutting function of Jaguar IV and Puma III cutting plotters.

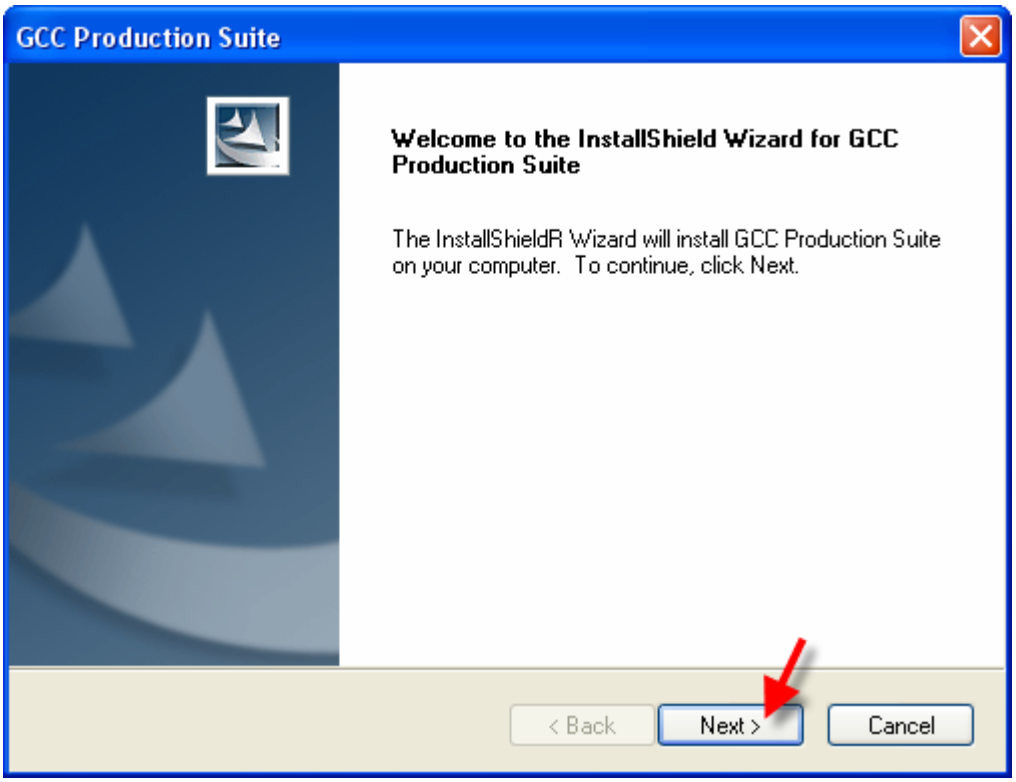
SignPal 8.5 Instruction Index:

[1] Installing the SignPal 8.5 software…….. P.01
[2] Set up your GCC Cutter on Production Manager……. P.10
-- SignPal AAS II Quick Start…… P.13
[3] Transferring a Software License Using Softkey…… P.17
[4] SignPal 8.5 Feature Lists…….. P.19

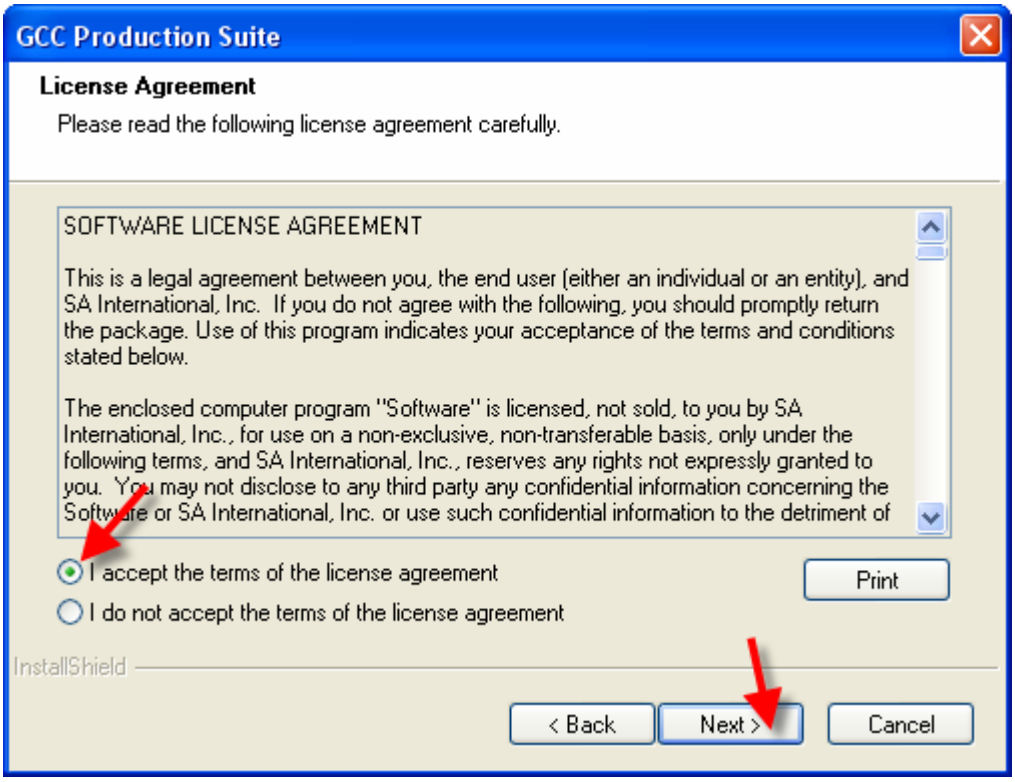
[1] Installing the SignPal 8.5 software

To install the software, you must have Administrator privileges. To use the software, you must have Administrator or Power User privileges. See your Windows user guide for more information.

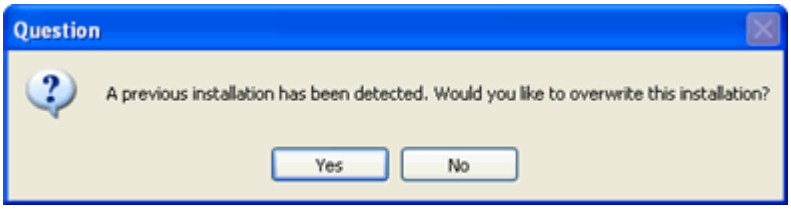
1. Uninstall any previous version of the software.
2. Insert the Installation DVD.
3. Select a language and click **OK**.
4. Click **Next**.


GCC Production Suite
Welcome to the InstallShield Wizard for GCC Production Suite
The InstallShieldR Wizard will install GCC Production Suite on your computer. To continue, click Next.
< Back
Next >
Cancel

5. Read the Software License Agreement and select **I accept the terms of the license agreement** and click **Next** to accept.

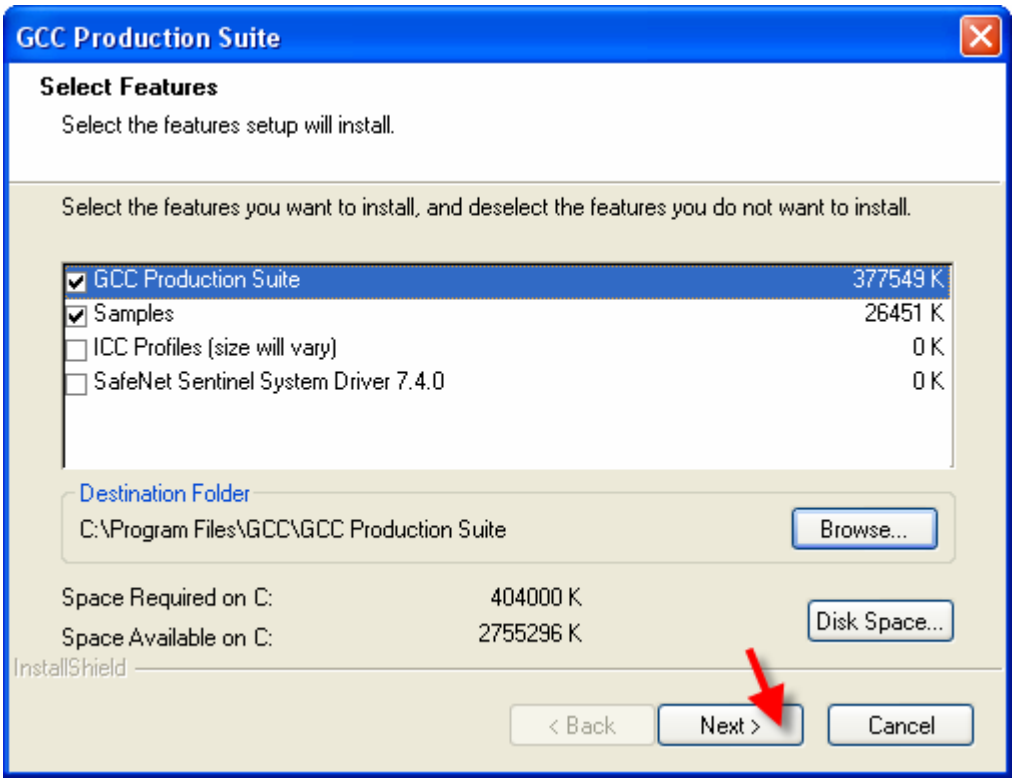

GCC Production Suite
License Agreement
Please read the following license agreement carefully.
SOFTWARE LICENSE AGREEMENT
This is a legal agreement between you, the end user (either an individual or an entity), and SA International, Inc. If you do not agree with the following, you should promptly return the package. Use of this program indicates your acceptance of the terms and conditions stated below.
The enclosed computer program "Software" is licensed, not sold, to you by SA International, Inc., for use on a non-exclusive, non-transferable basis, only under the following terms, and SA International, Inc., reserves any rights not expressly granted to you. You may not disclose to any third party any confidential information concerning the Software or SA International, Inc. or use such confidential information to the detriment of
I accept the terms of the license agreement
I do not accept the terms of the license agreement
Print
InstallShield
< Back
Next >
Cancel

6. If you did not have any previous versions of the software installed, skip to the next step. If you still have a previous version of the software installed, you will be prompted to overwrite the existing installation. Click **Yes** to overwrite any previous installation of the software.



7. Select the features of the software that you want to install and click **Next**:

- Check **GCC Production Suite** to install the software.
- Check **Samples** to install sample files.
- Check **SafeNet Sentinel System Driver** to install the software driver for this key. If you do not use this type of key, you do not need to install this driver.


GCC Production Suite
Select Features
Select the features setup will install.
Select the features you want to install, and deselect the features you do not want to install.
GCC Production Suite 377549 K
Samples 26451 K
ICC Profiles (size will vary) 0 K
SafeNet Sentinel System Driver 7.4.0 0 K
Destination Folder
C:\Program Files\GCC\GCC Production Suite
Browse...
Space Required on C: 404000 K
Space Available on C: 2755296 K
Disk Space...
InstallShield
< Back
Next >
Cancel

A. To change the default destination folder, click **Browse** and choose a new destination folder.

B. To check that the drive you are installing to has enough space for the installation:

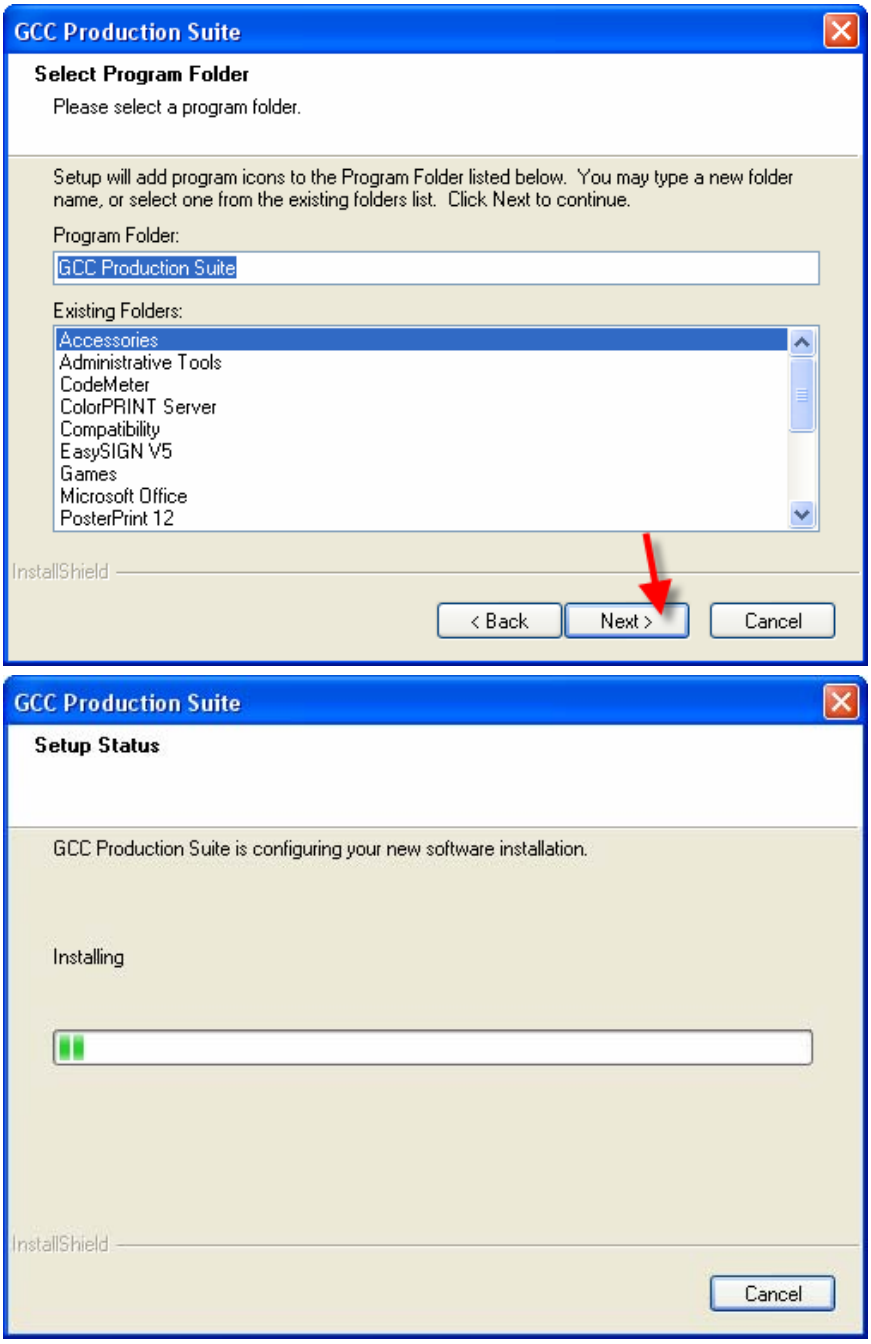
   a. Click **Disk Space**.

   b. From the drop-down menu, select the drive you want to install to, and verify that it has enough space for the installation.

   c. Click **OK**. The installation drive changes to the selected drive when you click **OK**.

8. Select the Program folder where the shortcut for the software will appear. A new folder is automatically created for the product.

9. Click **Next** to install the software.



10. Once the installer is finished installing, the **Install Manager** opens. The Install Manager allows you to run a demo version of any available products, or to enter a password to access the software and any optional features.

11. Do one of the following:

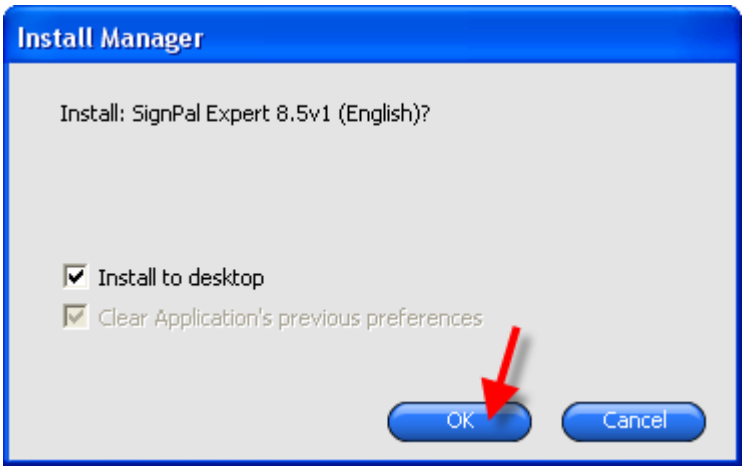
- Check **Run in demo mode** to run a demo version of any available products in any available language.

- Enter a Password, and then select a product from the **Product** list and a language from the **Language** list. Use the **Add** button to enter any additional passwords in the Optional Password section to unlock optional features.

  Password This is your main application password for the software.

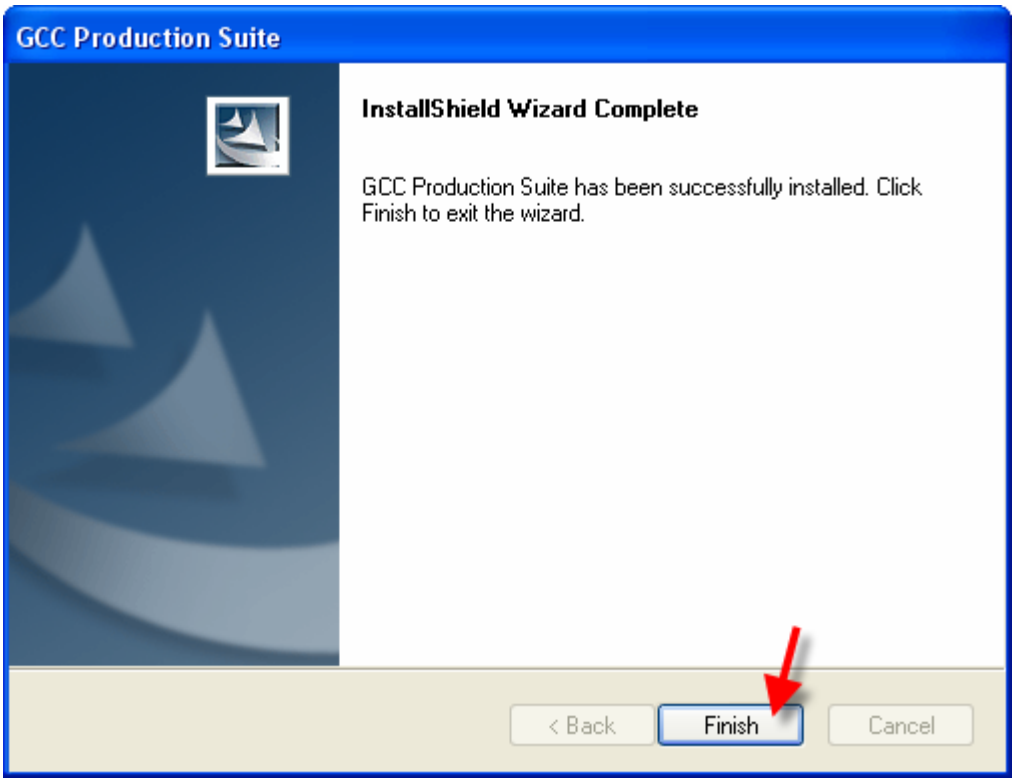
  Optional Password If you purchased additional options, you may enter the option passwords in this field to upgrade your software.

12. Click **Done**.

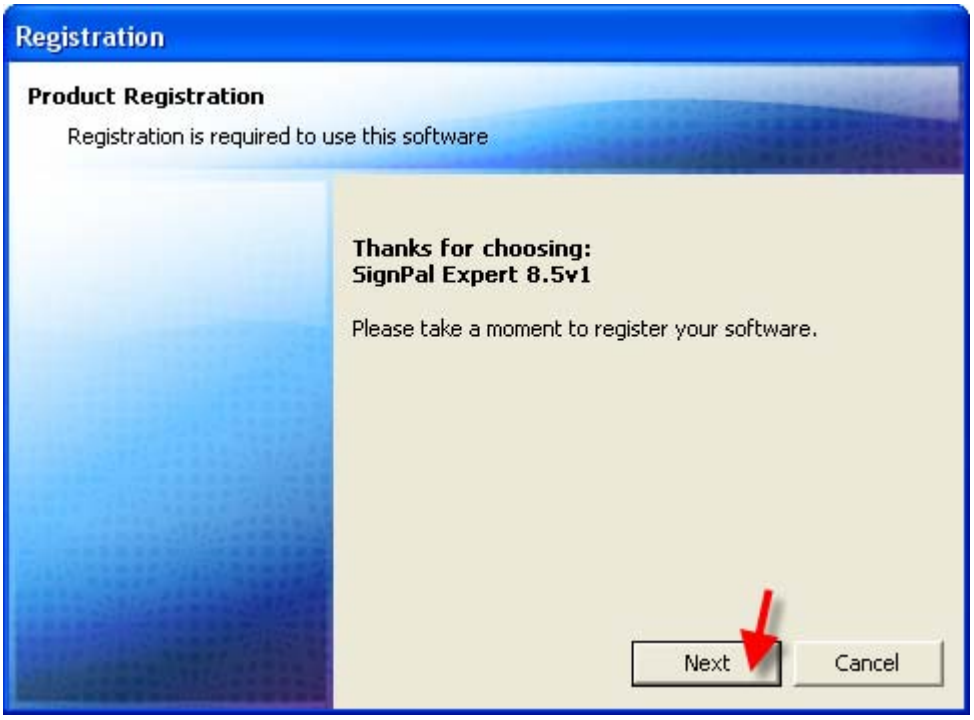


13. Check which icons and preferences you want to install:

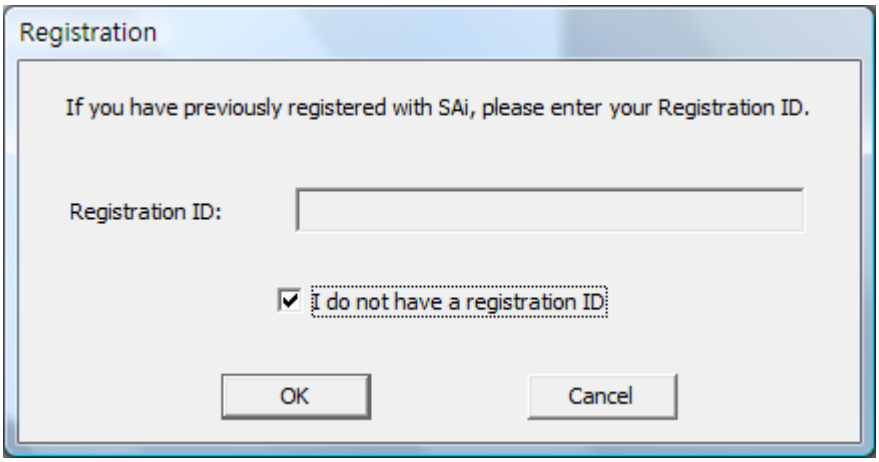
- Check **Install to desktop** to install a shortcut for the software on the desktop.
- Check **Install to startup items** to install a shortcut for the software in the Startup folder of the Start menu. If this is done, each time the computer starts up, the software will automatically start up and minimize itself, displaying an icon in the system tray of the Windows system tray.
- Check **Clear Application's previous preferences** to clear the preferences or clear the check box to retain old preferences.
- Click **OK**.



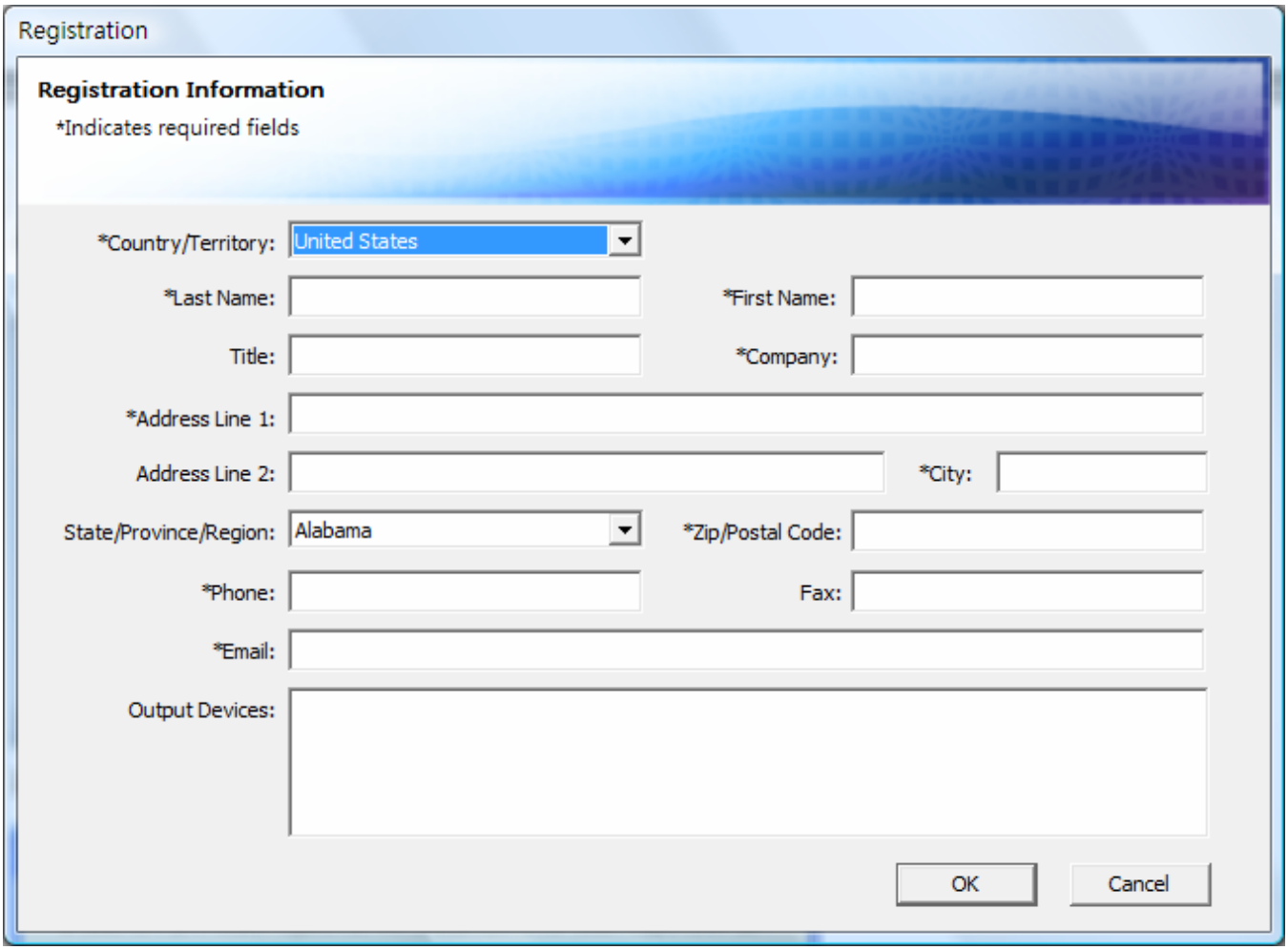
14. Open SignPal 8.5v1



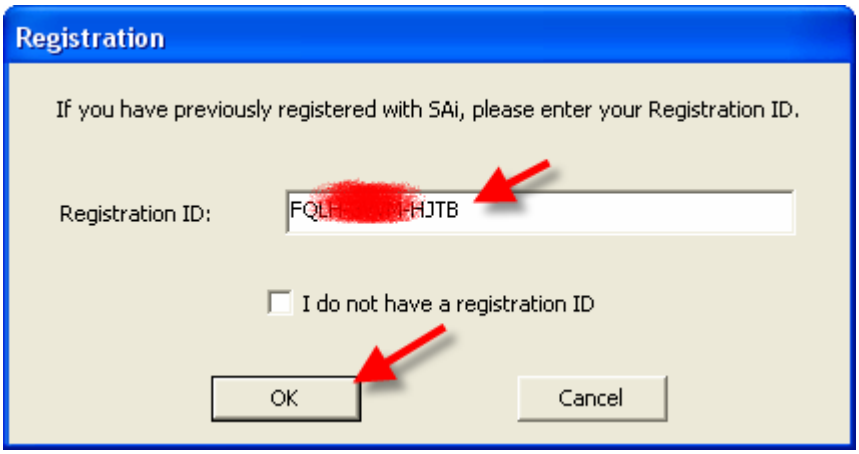
15. As you have not registered before, please check on the box at bottom to register a new account.


Registration
If you have previously registered with SAi, please enter your Registration ID.
Registration ID:
I do not have a registration ID
OK
Cancel

16. Input your personal information to complete the online registration.

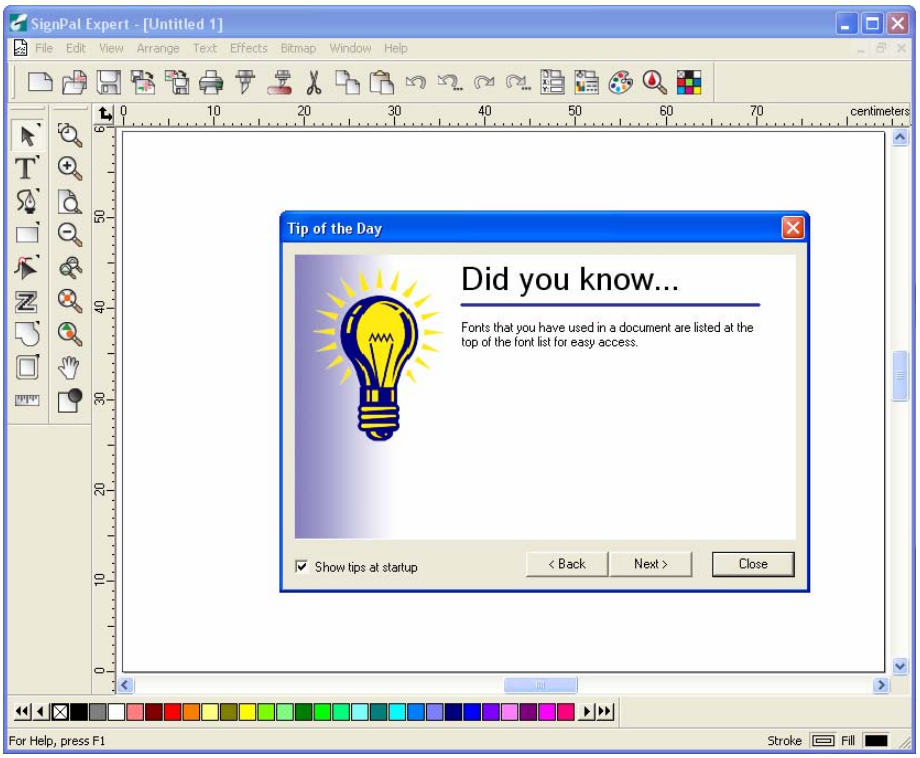


17. If you have registered before, please enter your Registration code as below to open SignPal 8.5v1 software.



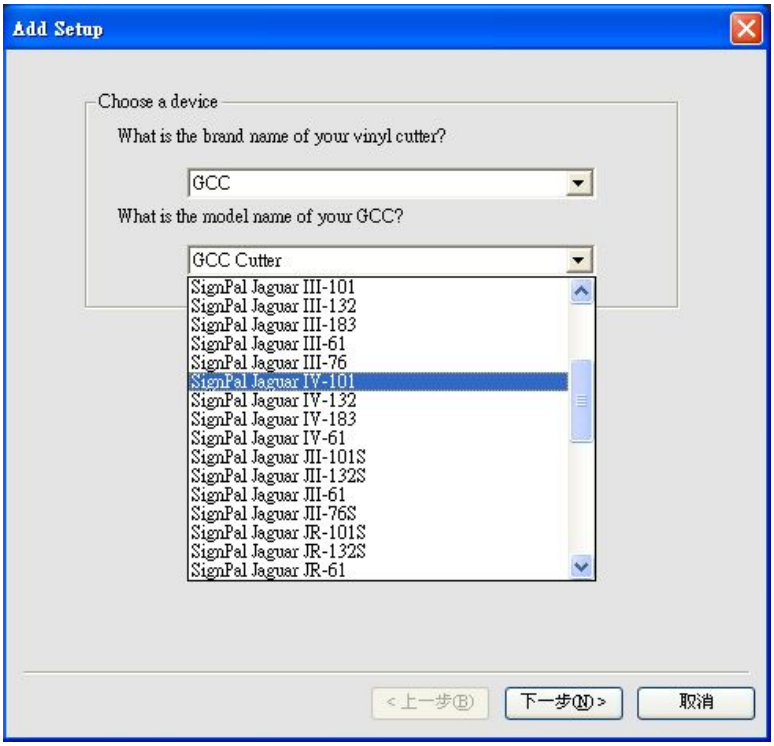
SignPal
Sign Making Software
SignPal

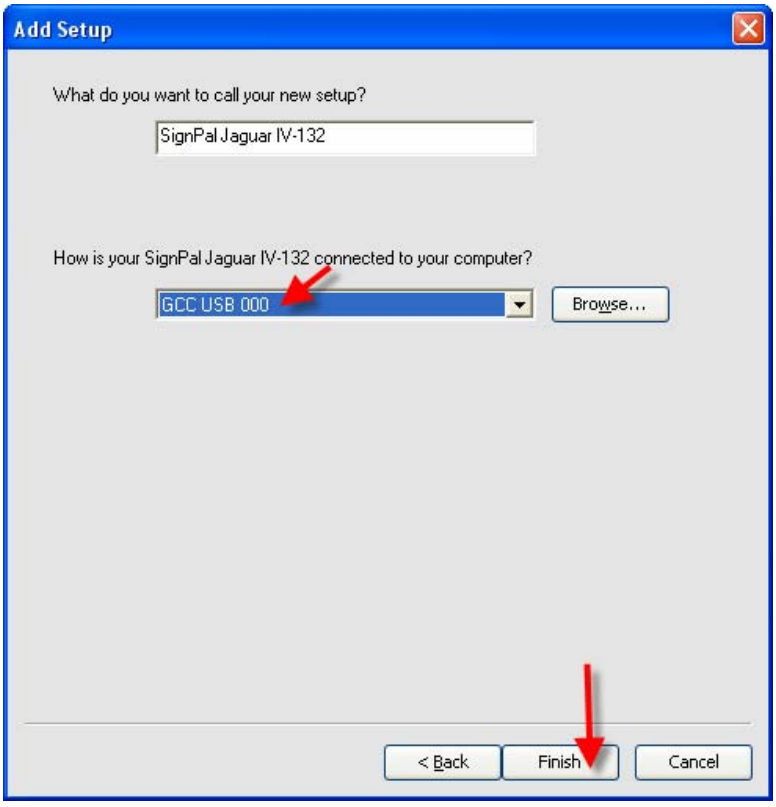
SignPal Expert
SignPal Expert 8.5v1
Runtime hours until password expires: 582.51
Licensed to:
YWHX-JDNM-
-WPCJ-TFV7-KYUP-YRGF
OK

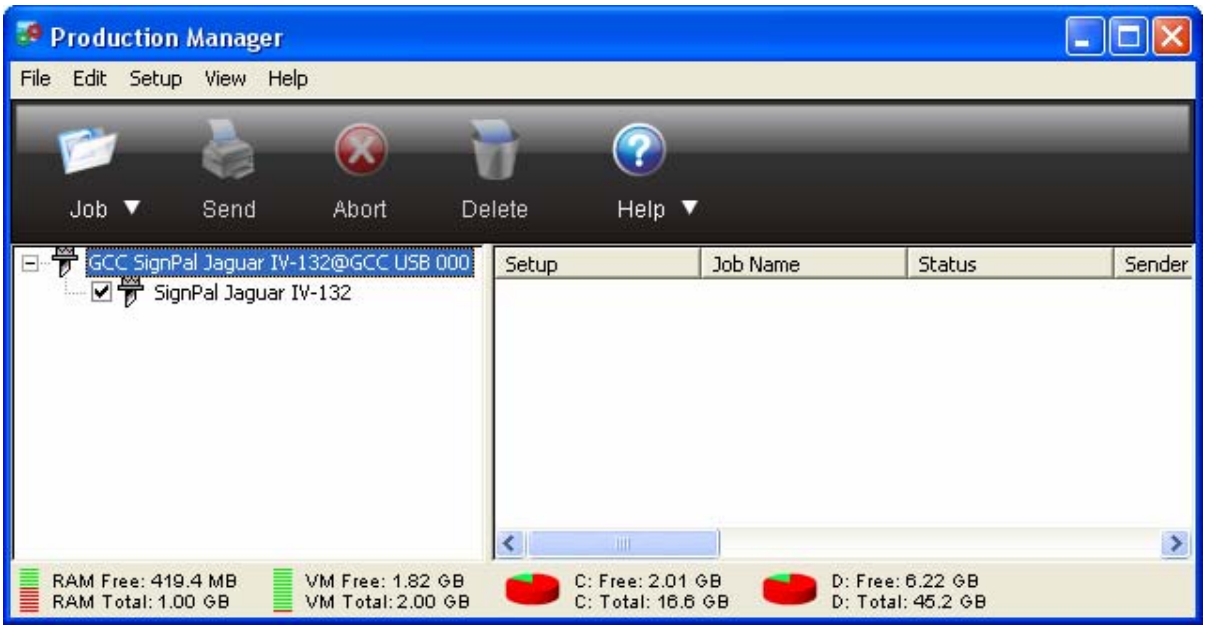

SignPal Expert - [Untitled 1]
File Edit View Arrange Text Effects Bitmap Window Help
centimeters
Tip of the Day
Did you know...
Fonts that you have used in a document are listed at the top of the font list for easy access.
Show tips at startup
< Back
Next >
Close
For Help, press F1
Stroke
Fill

[2] Set up your GCC Cutter on Production Manager

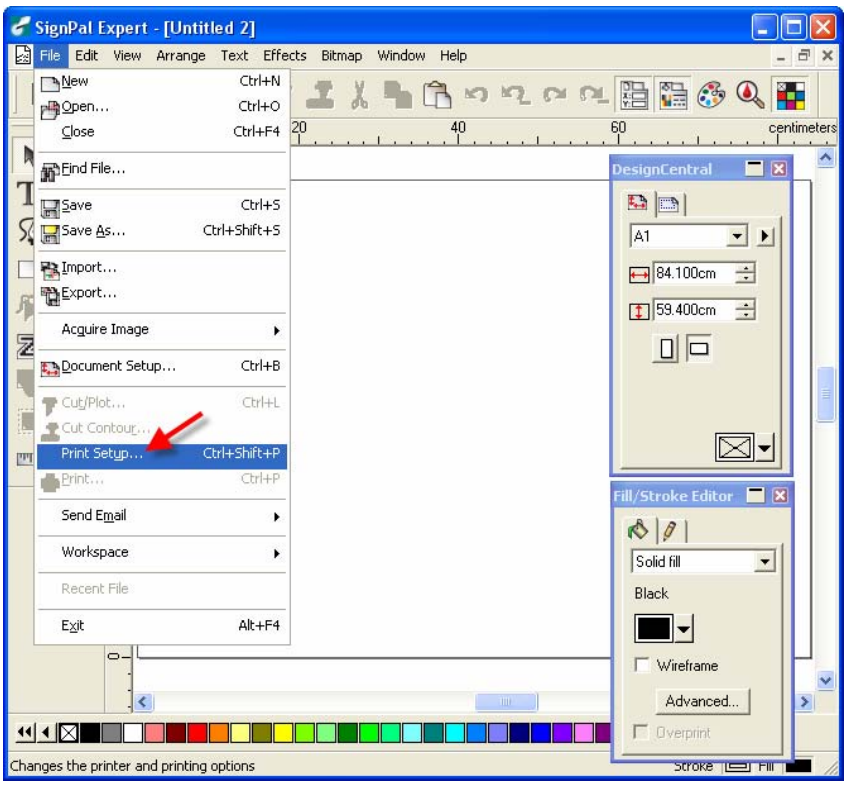
1. Open Production Manager 8.5v1
2. Choose and set up your GCC cutter.
   (Note that AAS II System only works on Jaguar IV and Puma III.)



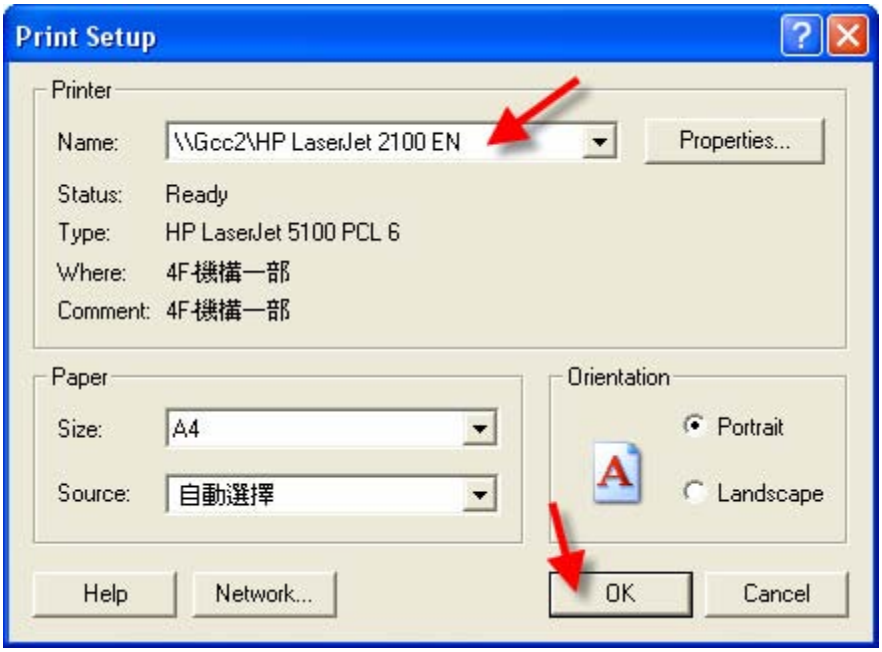


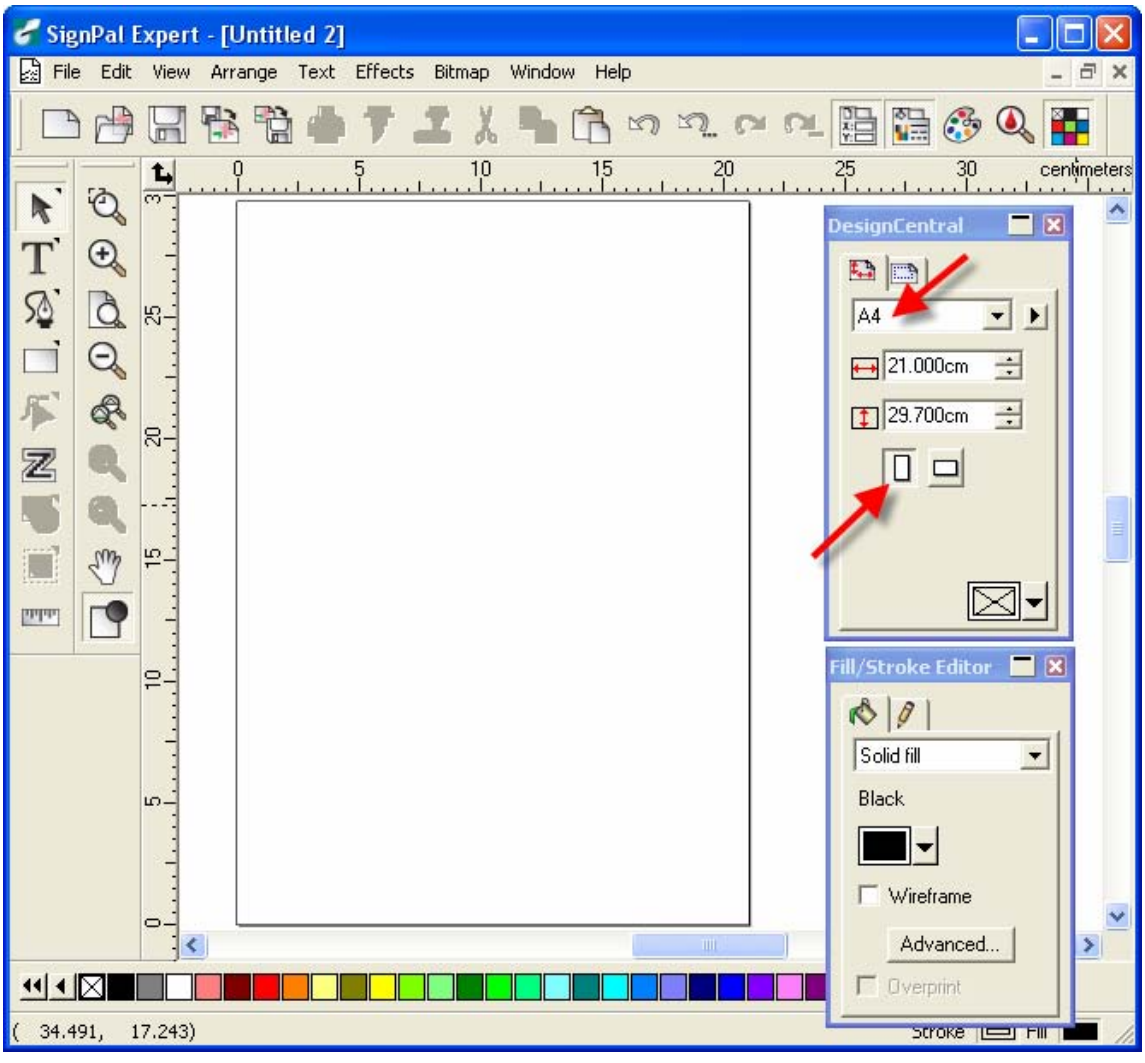


3. Select **File > Print Setup** in SignPal Software.



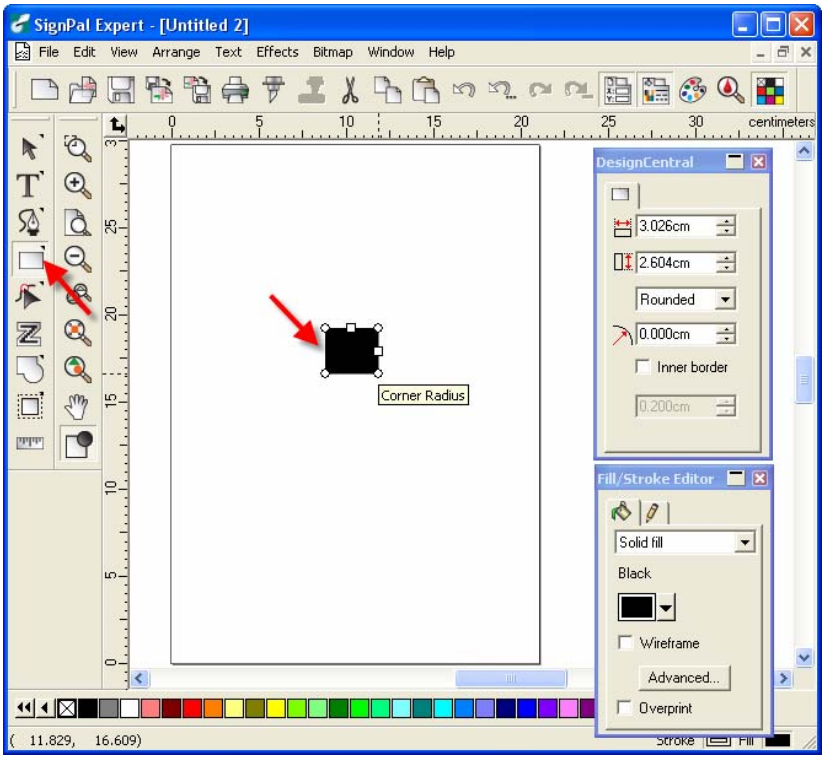
4. Select the printer and paper size.



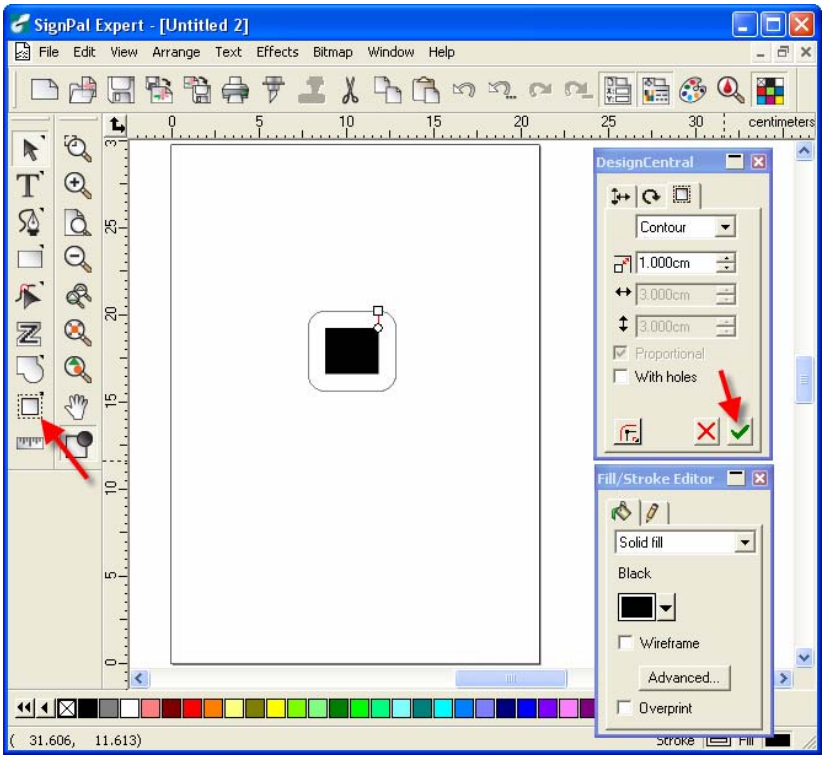


-- SignPal AASII Quick Start

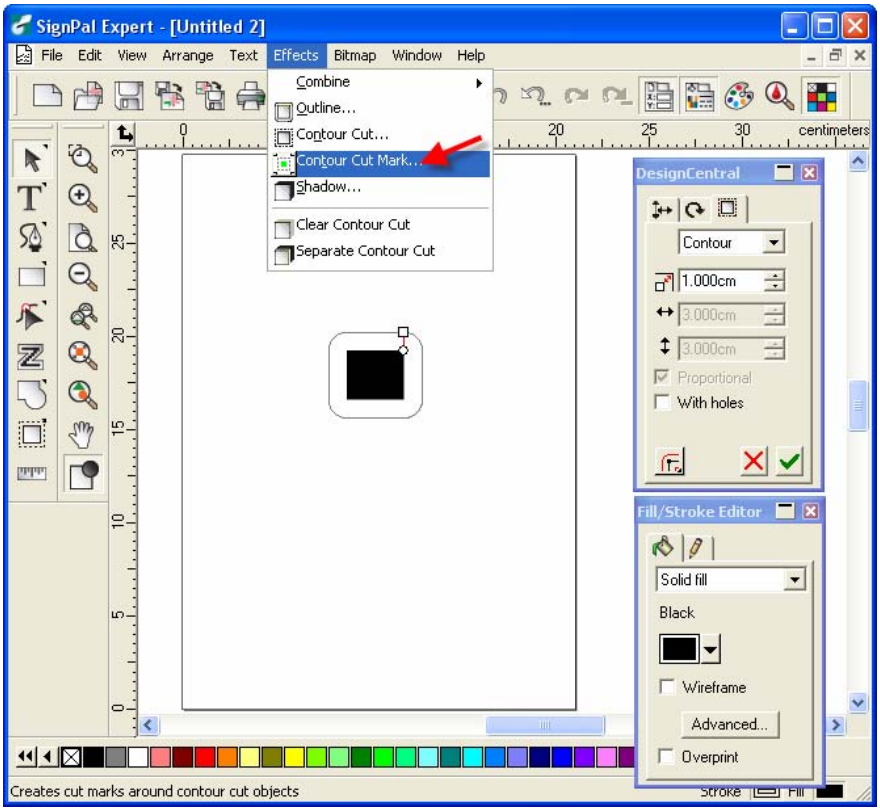
5. Use the **Rectangle Tool** to create a rectangle.



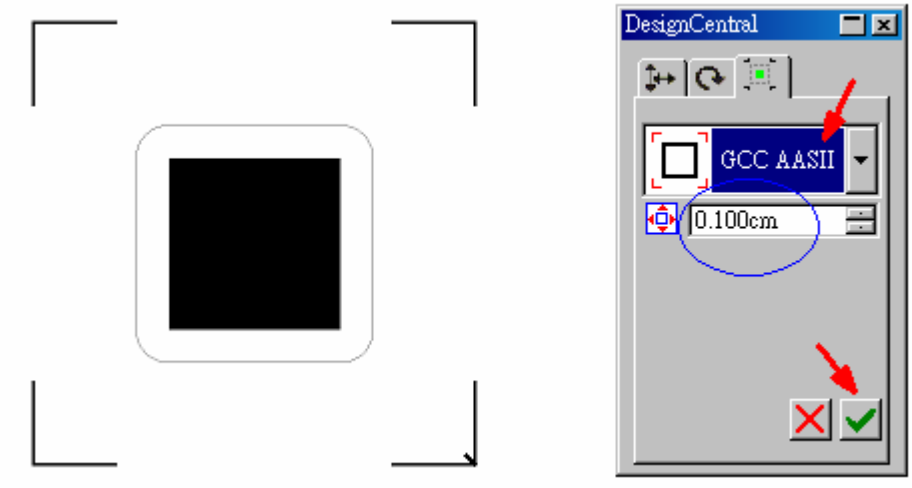
6. Select **Effect > Contour Cut**. Then click 'Apply' in DesignCentral window.



7. Apply the contour cut mark of GCC AASII by selecting **Effect > Contour Cut Mark**.



8. Select "**GCC AASII**" in SignPal DesignCentral window to create the AAS II registration marks (4-Point Positioning). Set the vales as 0.1cm or above and click '**Apply**' in DesignCentral window. The value is to define the distance between registration marks and image area. If the value is less than 0.1cm, it is likely that the image will overlap the marks and result in bad cutting quality.

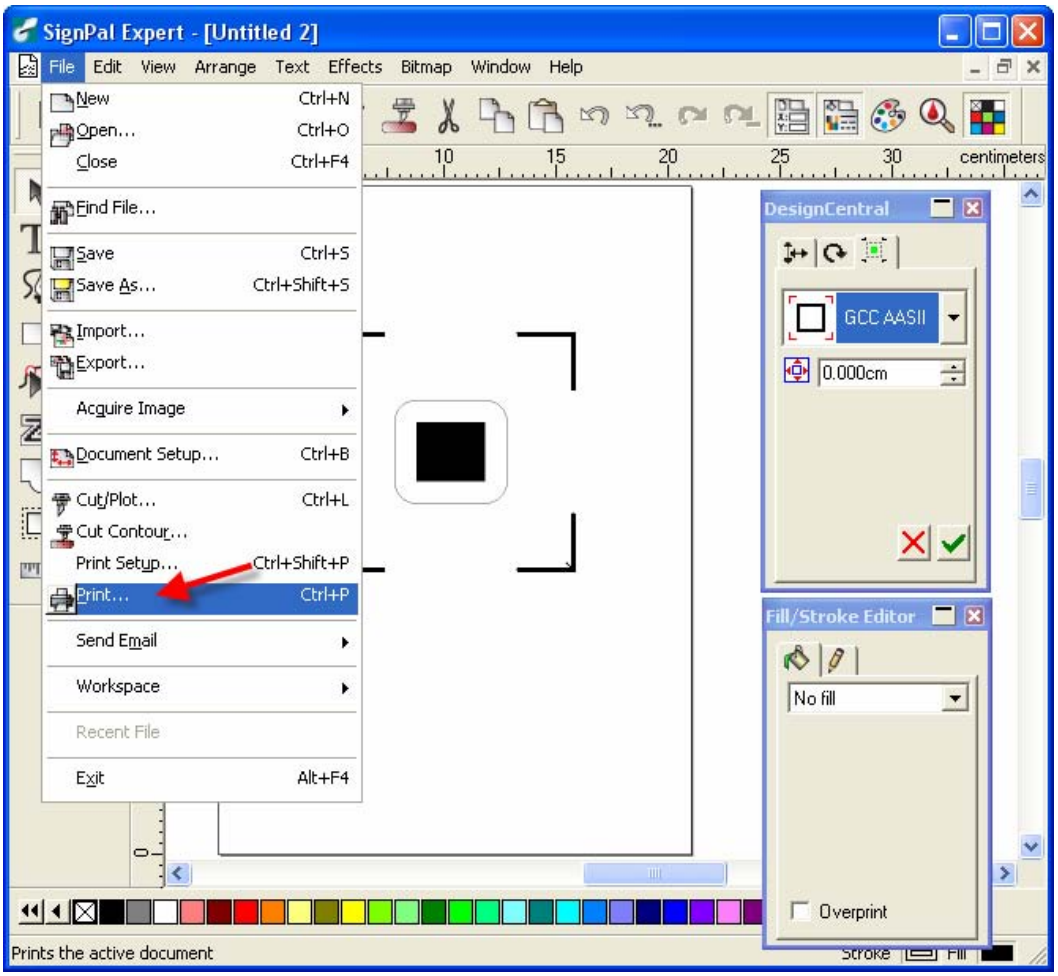


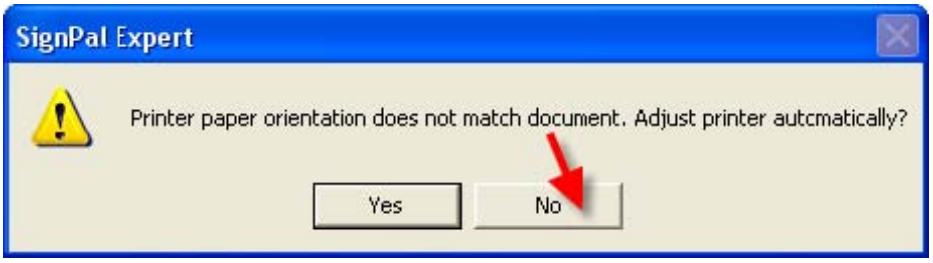
9. There are three types of GCC AASII registration marks: 4-Point Positioning, Segmental Positioning, and Multiple Copies. To make 'Segmental Positioning' marks, please select "**GCC**

Segmentation” in DesignCentral window and then click ‘**Apply**’.

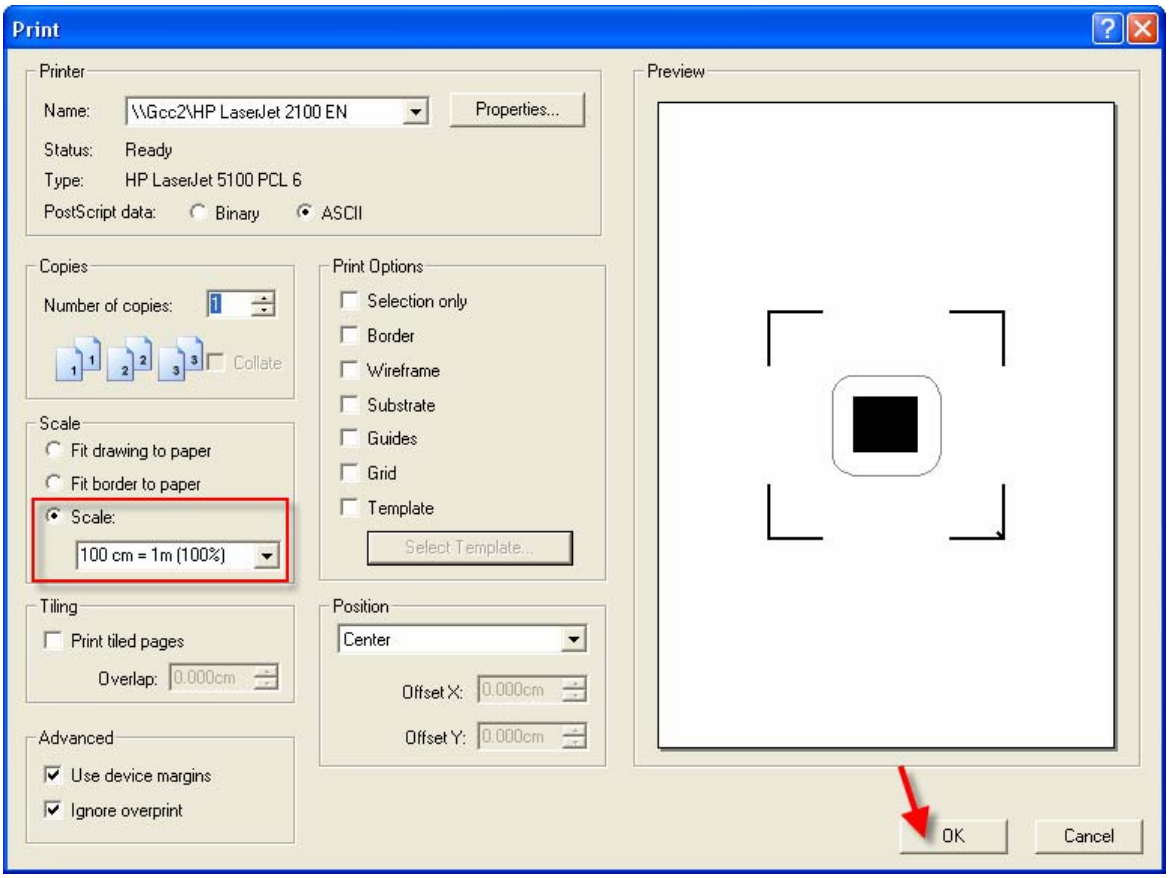
10. For ‘Multiple Copies’, this function is not available in SignPal. Currently the ‘Multiple Copies’ function is only available under CorelDraw plug-in.

11. Select **File > Print** to print out the image.

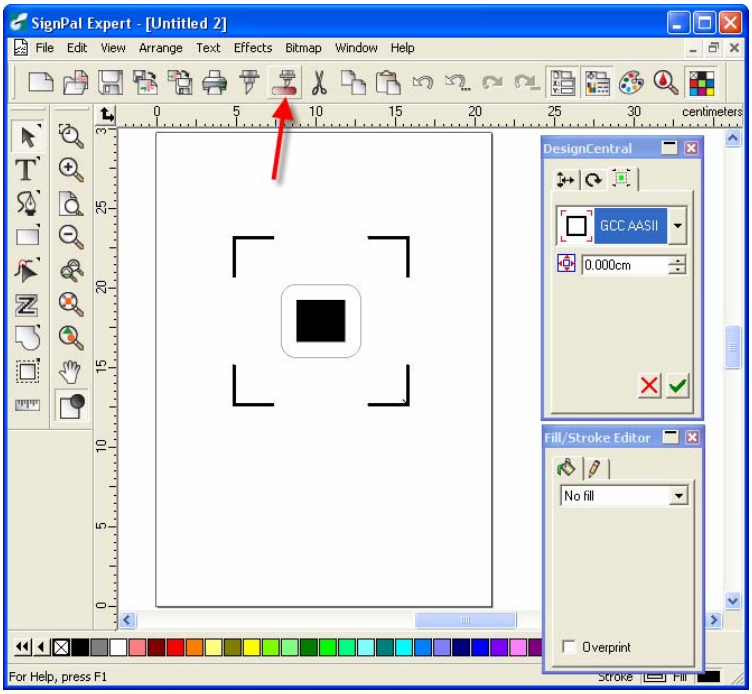


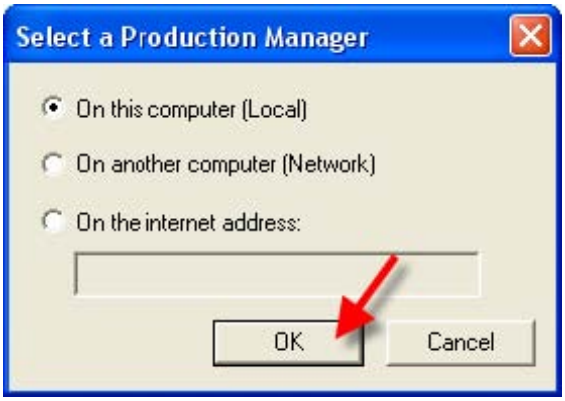


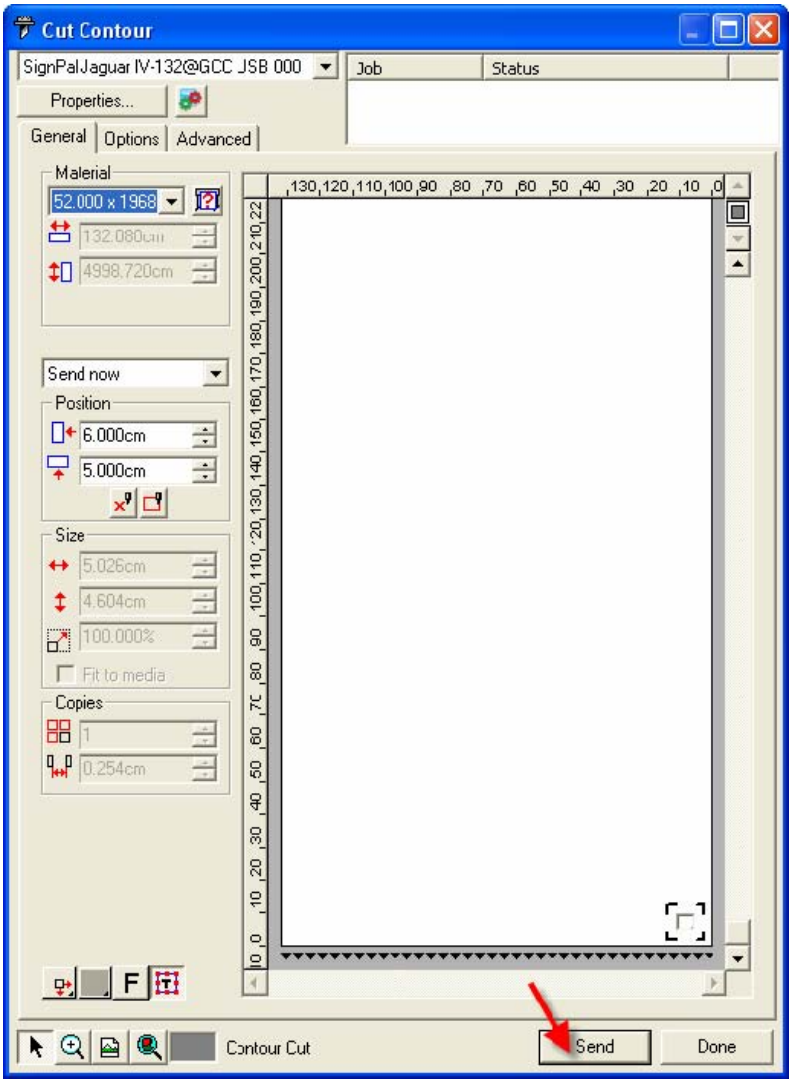
12. Set the Scale as 100cm =1m (100%) in Print page.



13. Load the printout vinyl on the plotter and select **File > Cut Contour** to send data. You can preview the job and change cutter's parameter settings in 'Properties' tab of Cut Contour window. The Production Manager will be automatic activated to complete the job.


SignPal Expert - [Untitled 2]
File Edit View Arrange Text Effects Bitmap Window Help
DesignCentral
GCC AASII
0.000cm
Fill/Stroke Editor
No fill
Overprint
For Help, press F1


Select a Production Manager
On this computer (Local)
On another computer (Network)
On the internet address:
OK
Cancel

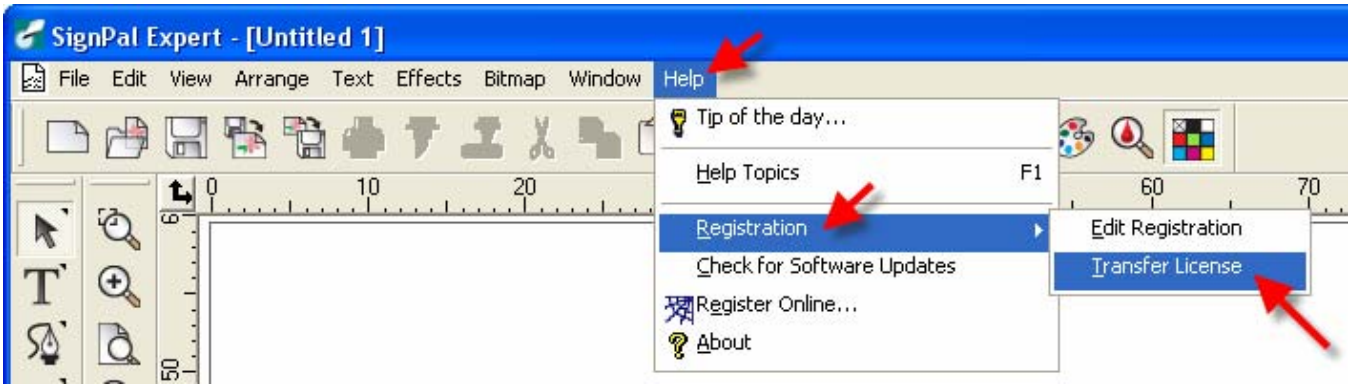

Cut Contour
SignPalJaguar IV-132@GCC JSB 000
Job
Status
Properties...
General
Options
Advanced
Malerial
52.000 x 1968
132.080cm
4998.720cm
Send now
Position
6.000cm
5.000cm
Size
5.026cm
4.604cm
100.000%
Fit to media
Copies
1
0.254cm
Contour Cut
Send
Done

[3] Transferring a Software License Using Softkey

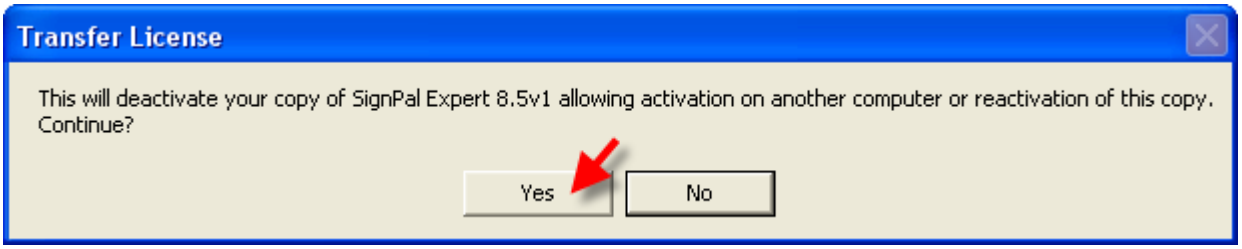
Softkey allows you to transfer the software license to another computer by disabling the software license on one computer, and enabling it on another.

> **Remarks**: If you would like to upgrade or reinstall the Windows OS, please transfer your license before reinstallation. If your hard drive has been formatted and you forget to transfer license in advance, please provide your SignPal ID and password to your local distributor, they will contact GCC to reset your data, and you will be able to register again afterward.

1. From the **Help** menu, mouse over **Registration** and select **Transfer License**.



2. Click **Yes** to deactivate the software license on the computer currently running the software. You can reactivate the license on another computer or the same computer.


Transfer License
This will deactivate your copy of SignPal Expert 8.5v1 allowing activation on another computer or reactivation of this copy. Continue?
Yes
No

3. Make note of your Registration ID and click **OK**.

Transfer License
Your license is ready to be installed on another computer.
Please write down your registration number: FQL[redacted]-HJTB.
You can use this code to skip the registration step when re-activating or re-installing the software.
OK

4. Install the software on the computer you wish to transfer the license to.

SignPal 8.5 Feature Lists

	Pro	Master	Expert	Apprentice	Function
Working with Files					
Job Info	●	●	●		Your program allows you to store information about the job with each file you create. You can add or change information about a job at any point in the design and production process. This information becomes part of the file and is saved when the file is saved.
Templates	●				Templates allow you to create multiple copies of your document using a pre-defined layout. Additionally, you can create documents, such as invoices, based on Job Information.
Using DesignEditor					
DesignEditor	●	●			DesignEditor helps you manage the various layers and objects in your design. You can choose to display some layers and hide others, delete or add layers and do similar functions with individual objects.
Arranging Objects					
Distribute	●				Distributing allows you to evenly distribute a number of objects throughout an area.
Working with Color					
Eyedropper	●				The Eyedropper tool sets the fill options of the selected objects to match the color, pattern or gradient fill of whatever it clicks on. If you click on a bitmap, the eyedropper will return a solid color that matches the pixel you clicked on.
Using Fill/Stroke Editor					
Overprint	●	●	●	●	The Overprint setting is used to identify areas of your design that are covered by multiple layers of ink or vinyl. These areas may require special treatment in order to be output successfully. For example, in some output devices, a higher heat setting must be used when multiple layers are present. This may require that those objects

					be output using a separate printing pass.
Working with Shapes					
Fan	●				For Fan shape, you can adjust the Outer radius, Thickness, Rotation angle and the Sweep angle.
Arrow	●				For Arrows, you can adjust the Arrow Length, Angle, Tail Length and Width, Cap Length and Wing angle.
Working with Text					
Text Block Size	●				Adjusting Text Block Size 1 Select the text. 2 From the Text menu, select Text Spacing. 3 Enter the desired text Width and Height. • When Adjust word spacing only is checked, only the spaces between words are increased or decreased. If there are no spaces in the text, the width will remain unchanged. • When Proportional is checked, changing a value automatically changes the other one, keeping the size proportional. □ Text must have more than one line in order to change the text height.
Working with Bitmaps					
Scanning	●	●	●		Scanning allows you to convert a printed image into an electronic image.
Rasterize	●				From the **Bitmap** menu, select **Rasterize**. You can edit the following attributes: **Keep Original** Checking this option will preserve the original objects, a new rasterized image will be placed on top of original objects. **Create mask** When this option is checked, the shape of the new bitmap will be the same as the original objects. **Transparent** When this option is checked, the background color of the bitmap will be set to be transparent. **Resolution** The resolution of the new bitmap. **Color Mode** The color mode of the new bitmap. **Margin** The white space around the bitmap.
Colormode	●				**Available Color Models** Colors can be defined using the following

					models: **RGB** The color is expressed as a combination of red, green and blue values. This is the color model most commonly used for computer graphics. **CMYK** The color is expressed as a combination of cyan, magenta, yellow and black values. This is the color model most commonly used in color printing. **LAB** The CIE LAB model is a device-independent color model that expresses color using a luminance value and two chrominance values. **HSB** The color is expressed using values for hue, saturation and brightness. **Spot** The color is selected from a number of lists of standard ink or ribbon colors provided by established suppliers. **Duotone** Duotone colors are made by overlaying two spot colors. The color that is printed first is called the base color, and the color that is printed on top of the base is called the top color.
Marquee	•	•			Marquees select part of the image and allow only that part to be edited. The marquee can have any shape and its border is marked by a flashing dotted line.
Move	•	•			The Move tool copies selected portions of bitmaps, marked by marquees.
Eraser	•	•			The Eraser tool is used to remove unwanted parts of a bitmap, to restore an edited bitmap to its original image or fill an area with the background color.

Pencil	•	•			The Pencil tool will create freehand lines on a bitmap using the foreground color.
Fill	•	•			The Fill tool fills areas of a bitmap with the foreground color.
Crop	•	•			The Crop tool allows you to select part of a bitmap and delete the rest of it.
AutoTrace	•	•	•		AutoTrace traces each shape in the bitmap.
ColorTrace	•				The Color Tracing converts a color bitmap into colored paths. The color trace process involves two steps. The first is Posterizing, which reduces the number of colors. Then the posterized image is traced into objects with different colors.
Working with Effects					
Color Trapping	•				The Color Trapping effect removes most of the overlapping material between objects. The effect leaves enough overlapping material to ensure that no gaps will exist between the objects, even if the registration is slightly off.
Graphic Styles					Styles allow you to capture and apply the fill, stroke and effects from one object to another.
Contour	•	•	•		Contour Cut is a feature that creates a cutting line around objects, either vector or bitmaps. This allows you to output an image in a printer and then cut its contours using a cutting plotter.
Working with Measurements and Labels					
Dimensions / Labels	•	•			The software allows you to measure, label and dimension objects. By using the measuring tools, you can indicate the horizontal, vertical or diagonal dimensions of the design, or label objects.
Automatic Dimension	•	•			The Automatic Dimension tool allows you to automatically create horizontal and vertical dimension lines around objects.

					These dimensions lines are not linked to the object and will not be automatically updated if the object changes size.
Dimension to Page	•	•			The Dimension to Page tool allows you to automatically create horizontal and vertical dimension lines that measure the position of the object to the lower left corner of the design area. These dimension lines are linked to the object and will be updated if the objects change position.
Cutting your Design					
Cut/Plot	•	•	•	•	The Cut/Plot dialog box gives you complete control over how the job is produced.

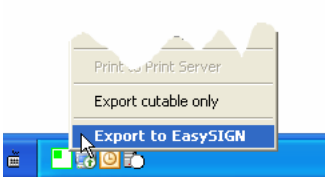
EasySIGN Instruction

The user manual of EasySIGN software is available on the EasySIGN program CD, or you can refer to the getting started manual available on the EasySIGN webpage at http://www.easysign.com/mainwebv1/DownGT.aspx.

GCC AASII Corpmark System

This application note will show you how to use the GCC AASII corpmark system. It assumes that you have installed your GCC plotter correctly, and that you are able to cut simple jobs on it. If not, please refer to the “Getting started” manual available through the menu "Help, Various, GettingStarted.pdf".

1. Make or import a design



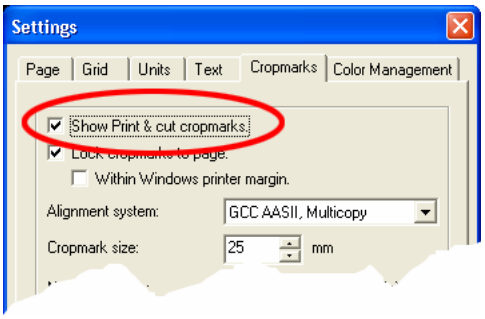
You can either make the design in EasySIGN or import an existing design from another application. For making the design in EasySIGN refer to the "Getting Started" manual. To import a design (for example an Adobe illustrator file) into EasySIGN, use either the compatibility option, or use direct import (menu : "File, Import"). The easiest way is to use compatibility. To do this, start EasySIGN, then use the menu “File, Compatibility”, and click the software of your choice.

This software will now start, and can be used to design or open the required job. Click the icon in the system tray to easily send the file into EasySIGN.

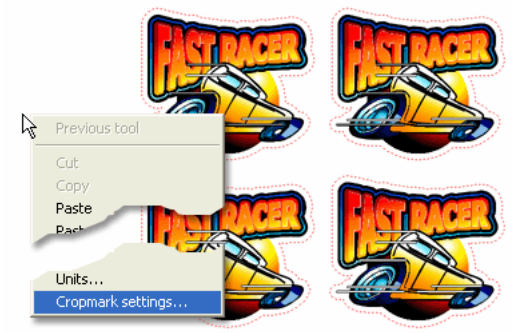
2. Create print & cut lines.

When your design is successfully imported into EasySIGN, you should then select the line or lines that you want to cut on your plotter. After selecting them, use the command “Edit, Convert to, Line type, Print&cut line”. The lines that will be cut are now shown in a dotted red line. Copy the design as you like.

3. Enable the cropmarks.



Right-click on an empty part of the worksheet, and choose the command “Cropmark settings”.



This will show a dialog.

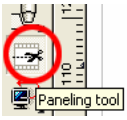
Please tick the box called “Show Print & cut cropmarks”.

Next, you need to make a choice which system that you want to use, there are three different systems:

GCC AASII	This system uses four cropmarks, and one copy. It is meant for jobs that are not very large (like 60 cm or smaller) and that are going to be printed on single sheets.
GCC AASII, Multicopy	Use this system when you want to cut multiple copies of a small job. This will give you very high accuracy, but the plotter will scan every copy of the job separately, which is of course slower than one big job.
GCC AASII, Multisegment	Use this system when the job is large. We recommend it for jobs bigger than 60 centimeter. It will place extra markers on the sheet, which will enhance the accuracy but will take extra time to scan.

The size of the cropmarks is fixed at 25 mm. Just click “OK” to close the dialog. If you have chosen the “Multicopy” cropmarks, there will be extra settings for horizontal copies, vertical copies etc, please ignore these for now, we will get back to them later.

4. Position the cropmark



Use the panelling tool from the left toolbox to drag the cropmarks around your job.

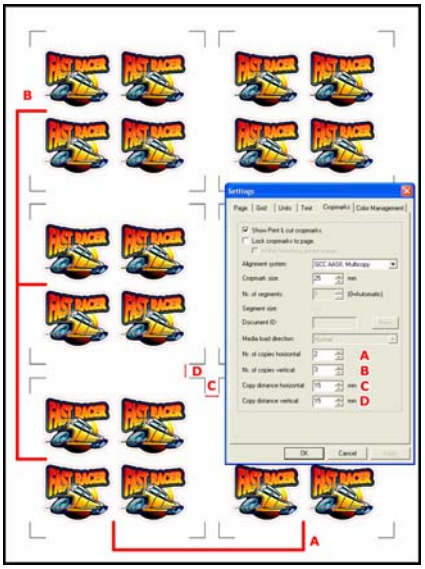
Make sure that the cropmarks have some white space around them, there should not be any objects inside them, to make sure they can be scanned accurately.

5. Export the job for printing

Your design is now ready for production. Click “File, Export”, and a dialog will come up that enables you to create a file. We advise you to use “EPS Encapsulated Postscript (*.EPS)” as the output format, this can be read by any RIP or other print software. Print the resulting EPS file with the software of your choice.

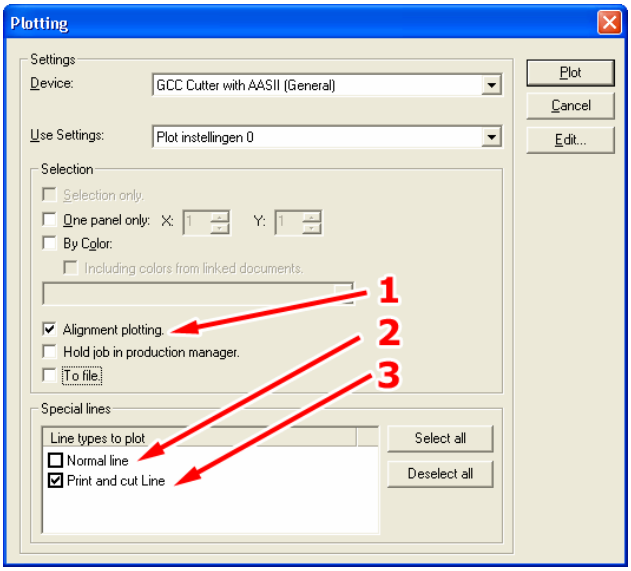
6. Cut the result

Place the resulting print in your plotter. Set the plotter to “offline” and use the arrow keys to position the laser within the lower right cropmark, then set the plotter to “online”.



If you have chosen the cropmarks “Multicopy”, there is one extra step: right-click the page and go to the “Cropmark settings” dialog again. In the dialog, enter the correct values for “nr. Of copies horizontal”, “Nr of copies vertical” and “Copy distance horizontal”, “copy distance vertical”, then click “OK”.

In the EasySIGN software, choose “File, Plotting”. A dialog will come up that allows you to change the plotter settings.



Just make sure that the following settings are made:

Alignment plotting (1)	Switched on
Normal line (2)	Switched off
Print and cut line (3)	Switched on

Then click “OK”. Your plotter will then start scanning the cropmarks, and after that the job will be cut.

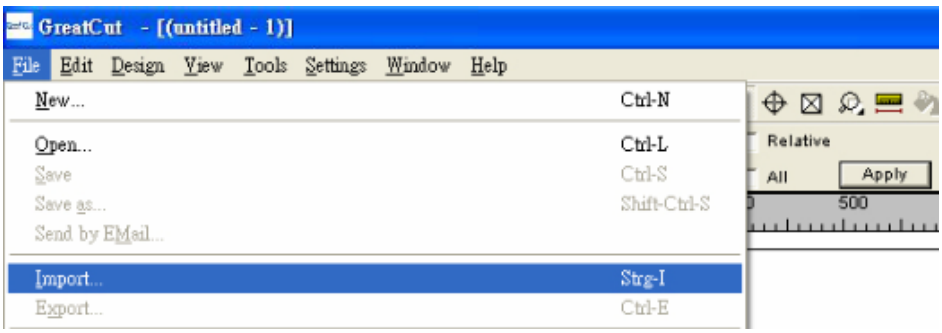
GreatCut Instruction

The user manual of GreatCut software is available on the GCC installation CD.

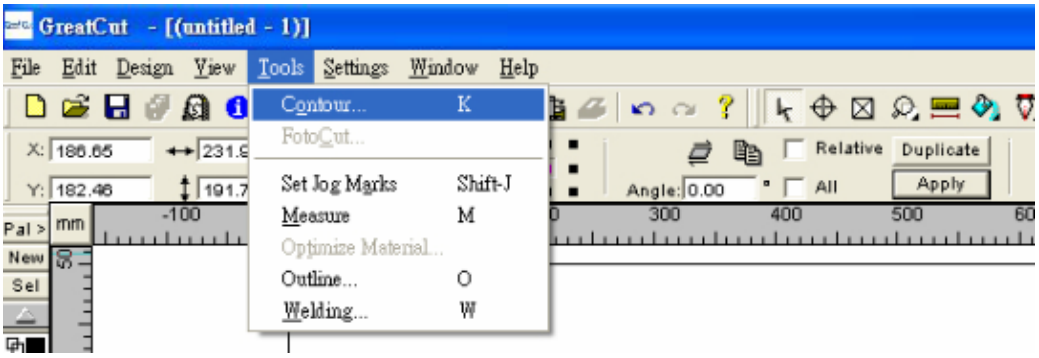
GCC AASII System

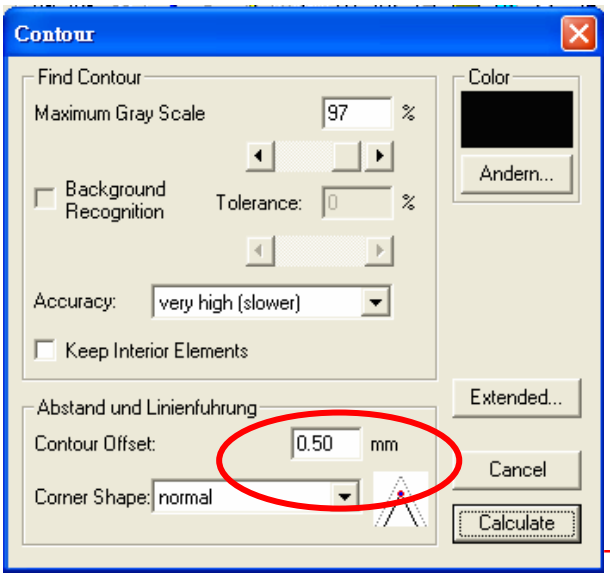
Below are step-by-step instructions when using the AAS function of GreatCut software.

Step 1 Import the image you want to print and cut.



Step 2 Add the contour line.

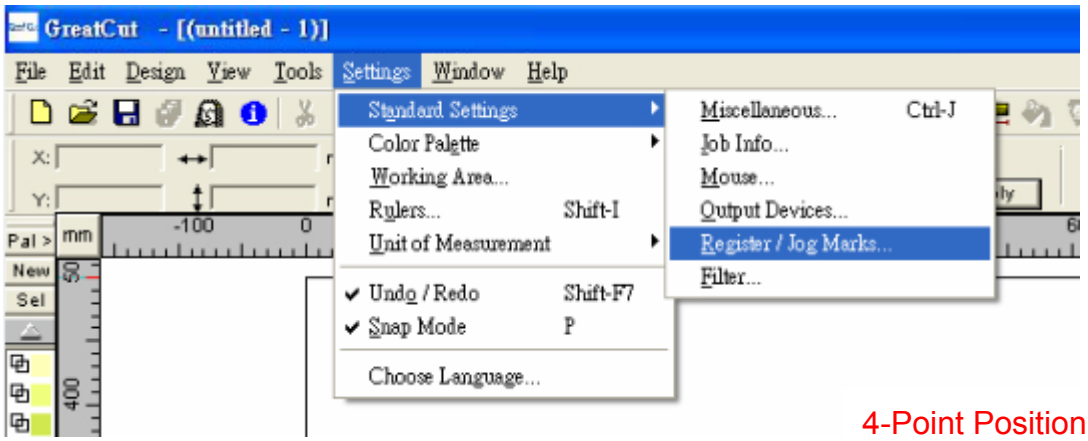


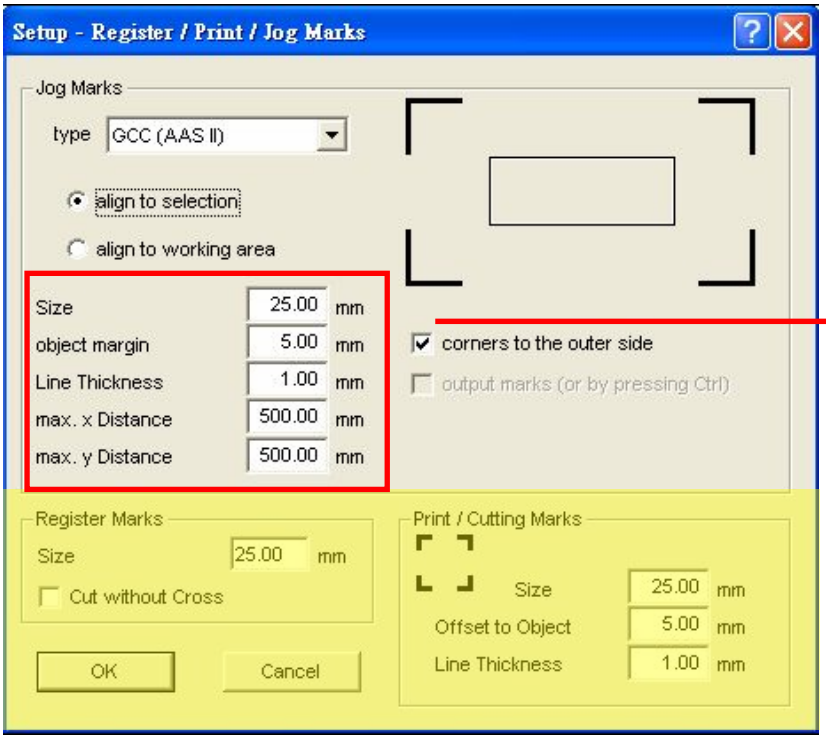


The value of Contour Offset should be ≥ 0.5mm.

Step 3 Add the registration marks

Set up the value of registration marks.





4-Point Positioning

- Size: The length of marks
  → Range: 5mm~50mm
  → Optimized Setting: 25mm
- Object margin: The distance between marks and images
  → Range: 0mm~50mm
  → Optimized Setting: 5mm
- Line thickness: the line thickness of marks
  → Range: 1mm~2mm
  → Optimized Setting: 1mm

Segmental Positioning

- Max. x Distance: The distance of intermediate position on the X axis
  → Range: 200-500 mm
- Max. y Distance: The distance of intermediate position on the Y axis
  → Range: 200-500 mm

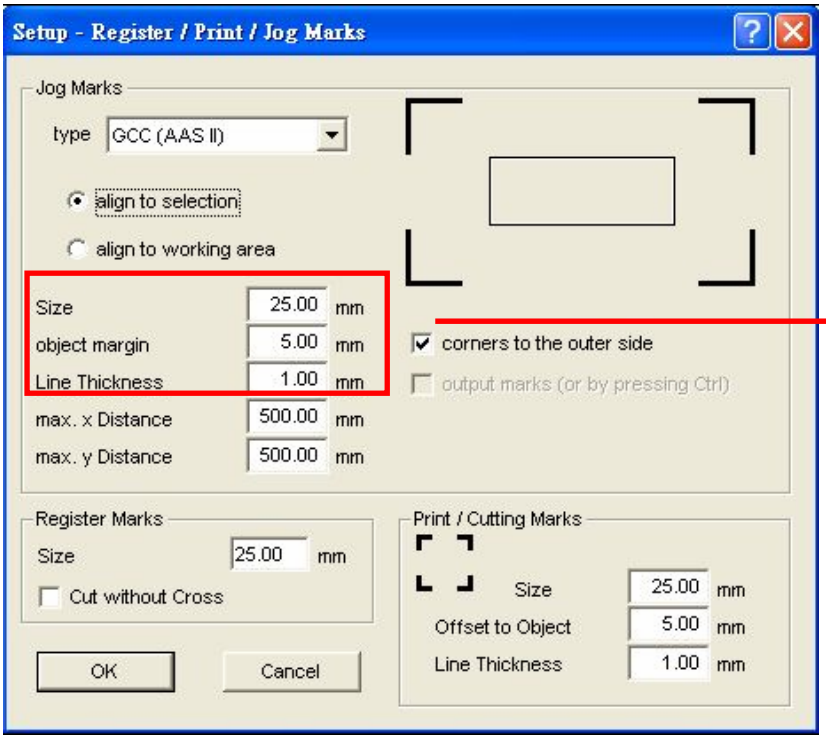
Note:

1. Jog Marks are Registration Marks; please adjust your parameters in this section. Please DO NOT make any changes to the “Register Marks” and “Print/Cutting Marks” sections highlighted in yellow.

2. Three types of registration marks and the ways of setting them are introduced in the following steps.

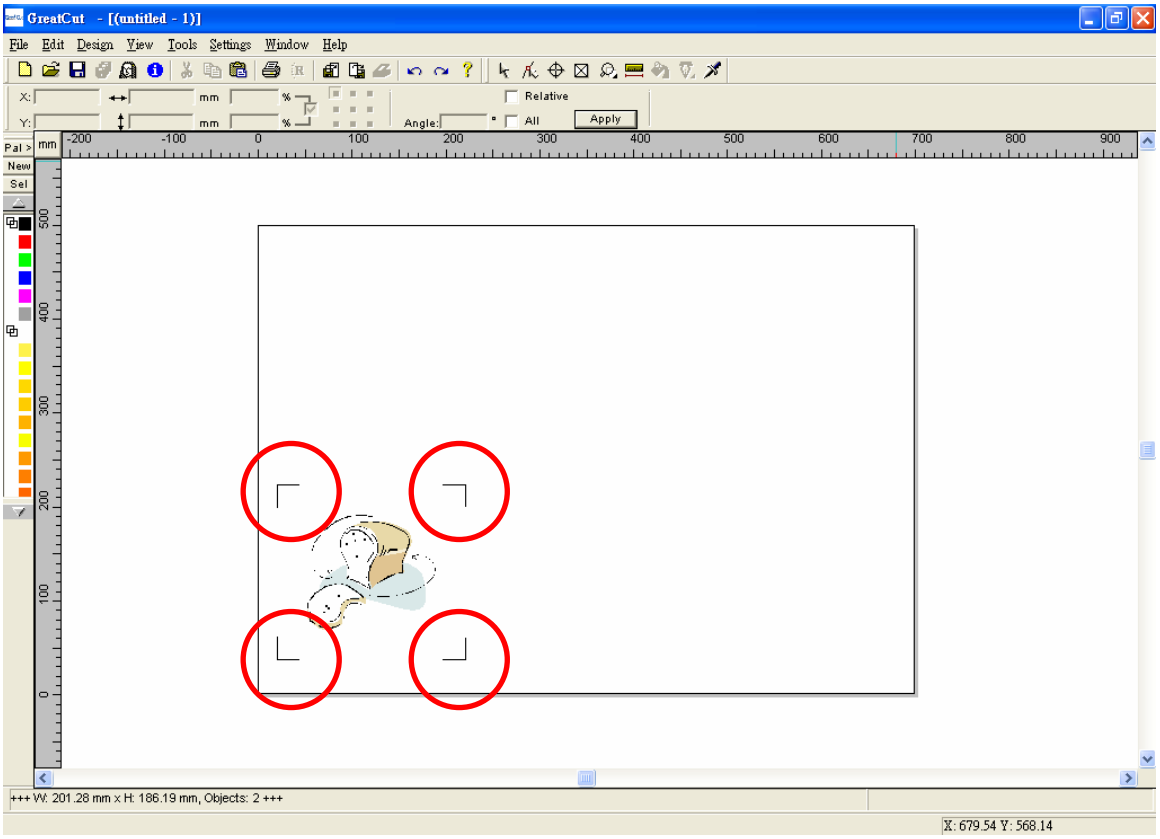
4-Point Positioning

Adjust the size, object margin and line thickness of your registration marks. After this is finished, click “Set Jog Marks” under “Tools”.



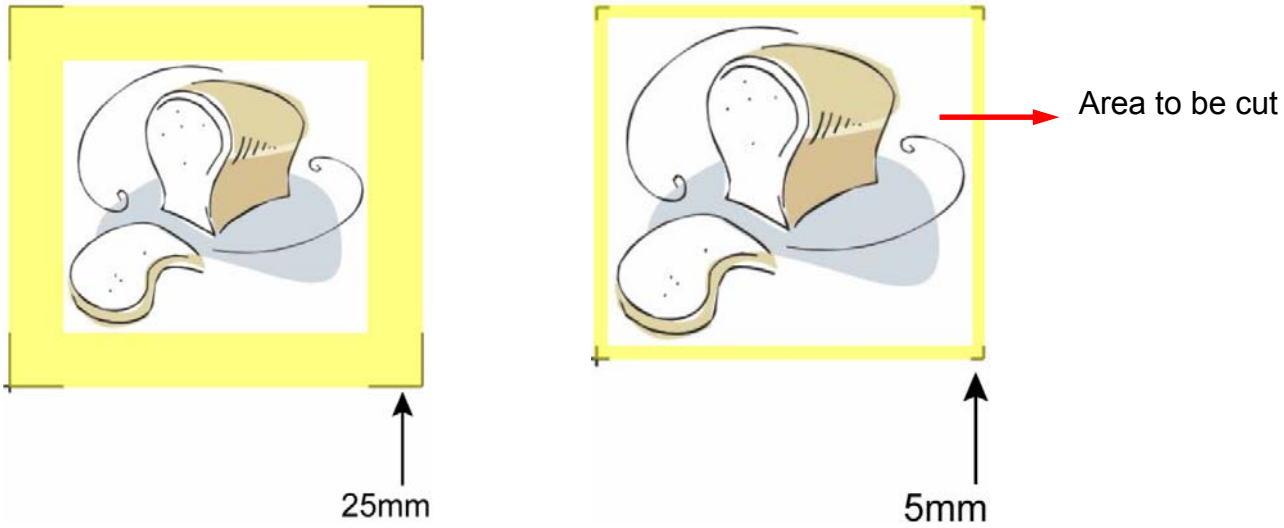
- Size: The length of marks
  → Range: 5mm~50mm
  → Optimized Setting: 25mm
- Object margin: The distance between marks and images
  → Range: 0mm~50mm
  → Optimized Setting: 5mm
- Line thickness: the line thickness of marks
  → Range: 1mm~2mm
  → Optimized Setting: 1mm

The system will create the 4 marks as shown in the picture below.


GreatCut - [(untitled - 1)]
File Edit Design View Tools Settings Window Help
Relative
All
Apply
+++ W: 201.28 mm x H: 186.19 mm, Objects: 2 +++
X: 679.54 Y: 568.14

Note:

1. To save your materials, in addition to amending object margins, you can also adjust the length of the registration marks (5mm minimum) when you apply the above function(see table 1 for suggestions based on different material sizes). The smaller the size is, the smaller the distance between the object and the registration marks is (see the figures below).



Page size (unit: inch)	Suggested mark length (unit: mm)
A6 (4.13 × 5.83)	5
A5 (5.83 × 8.27)	8
A4 (8.27 × 11.69)	11
A3 (11.69 × 16.54)	16
A2 (16.54 × 23.39)	23
A1 (23.39 × 33.11) and above	25*

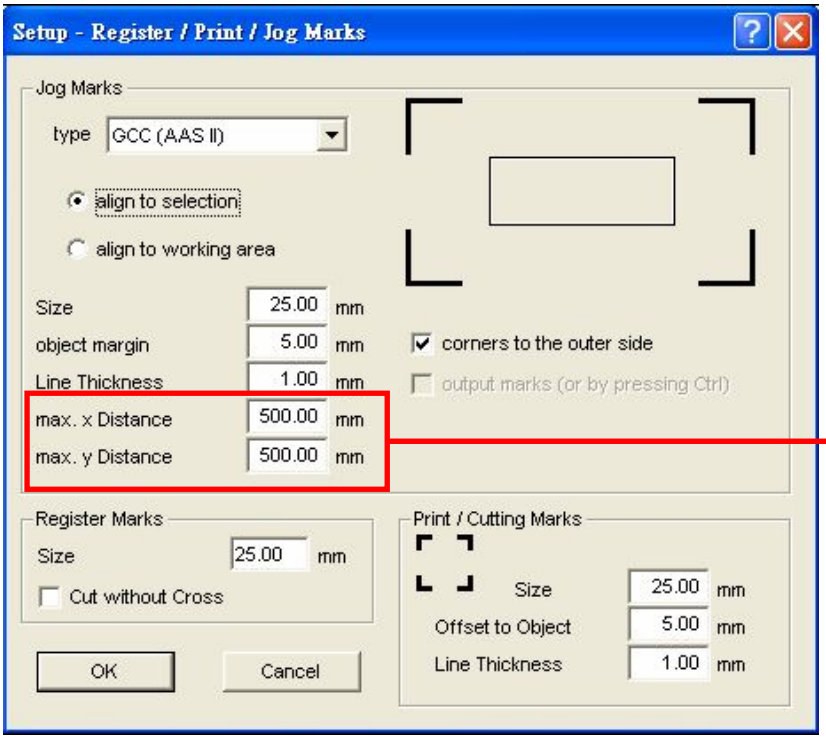
Table 1

*25mm is the suggested value for the registration mark length

2. The size of the registration marks would affect the accuracy of registration mark detection so please make sure the amount you enter is reasonable.

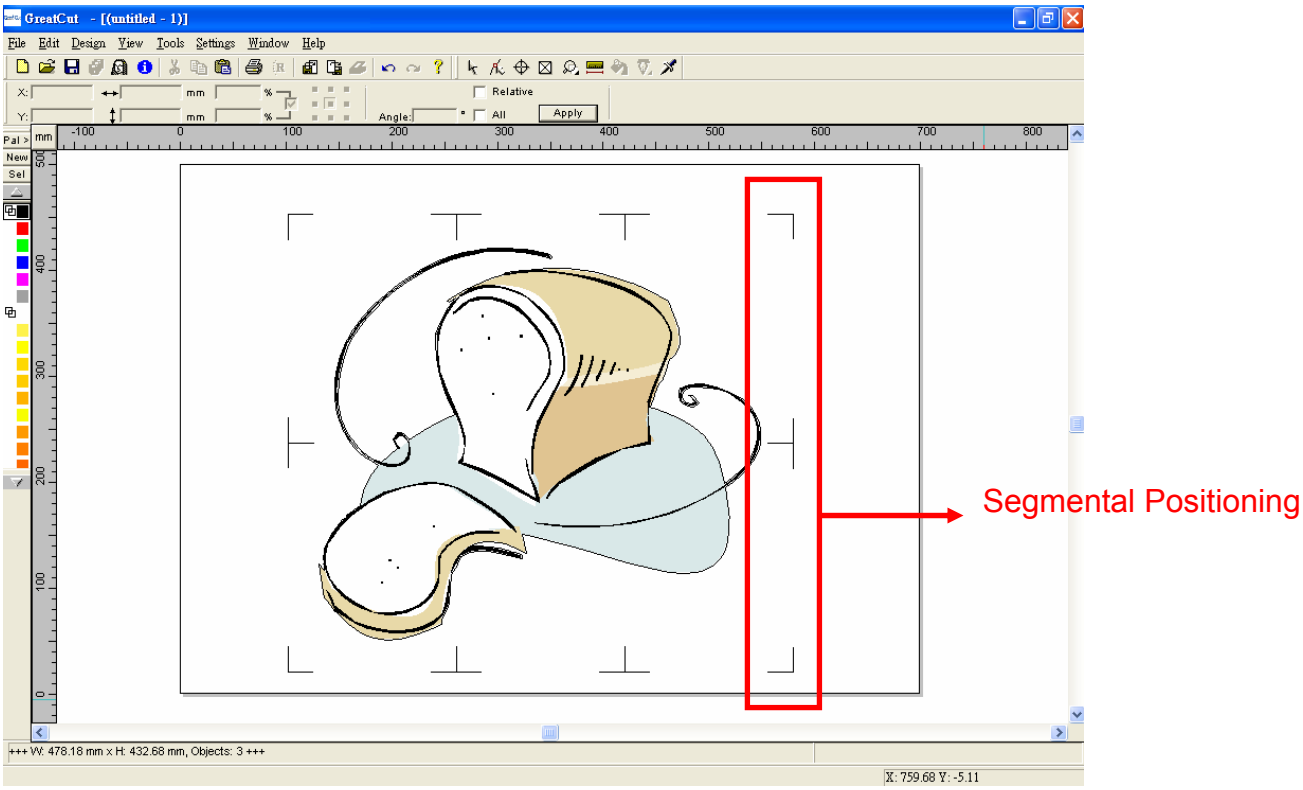
Segmental Positioning

For precise cutting quality, it is suggested to select “Segmental Positioning” by adjusting the x and y distance when you are working on an extra long or large-size image to increase cutting quality.

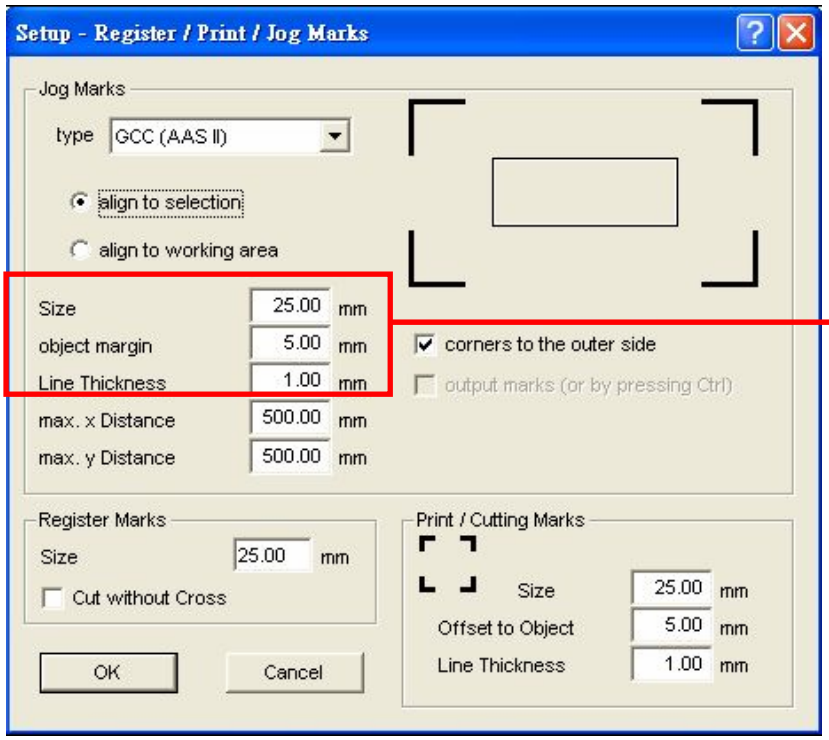


- Max. x Distance: The distance of intermediate position on the X axis
  → Range: 200-500 mm
- Max. y Distance: The distance of intermediate position on the Y axis
  → Range: 200-500 mm

The system will create the marks as shown in the picture below.

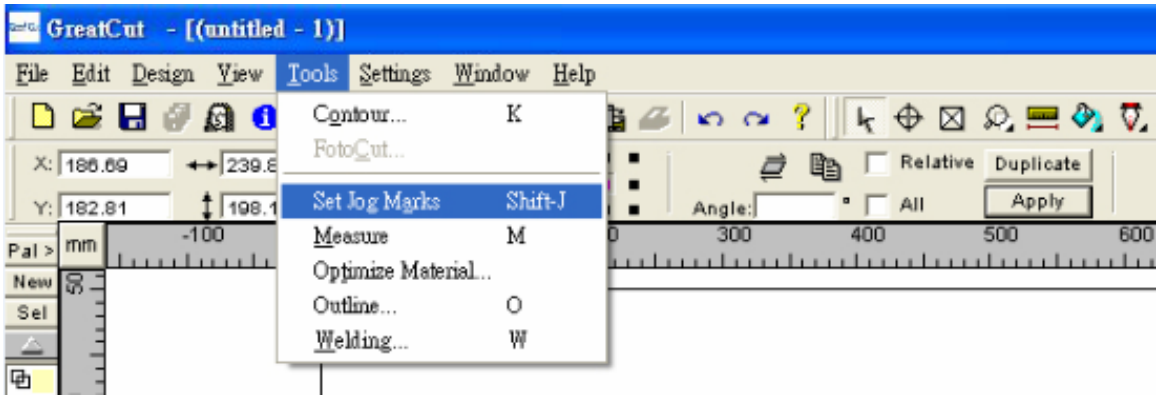


Multiple Copies

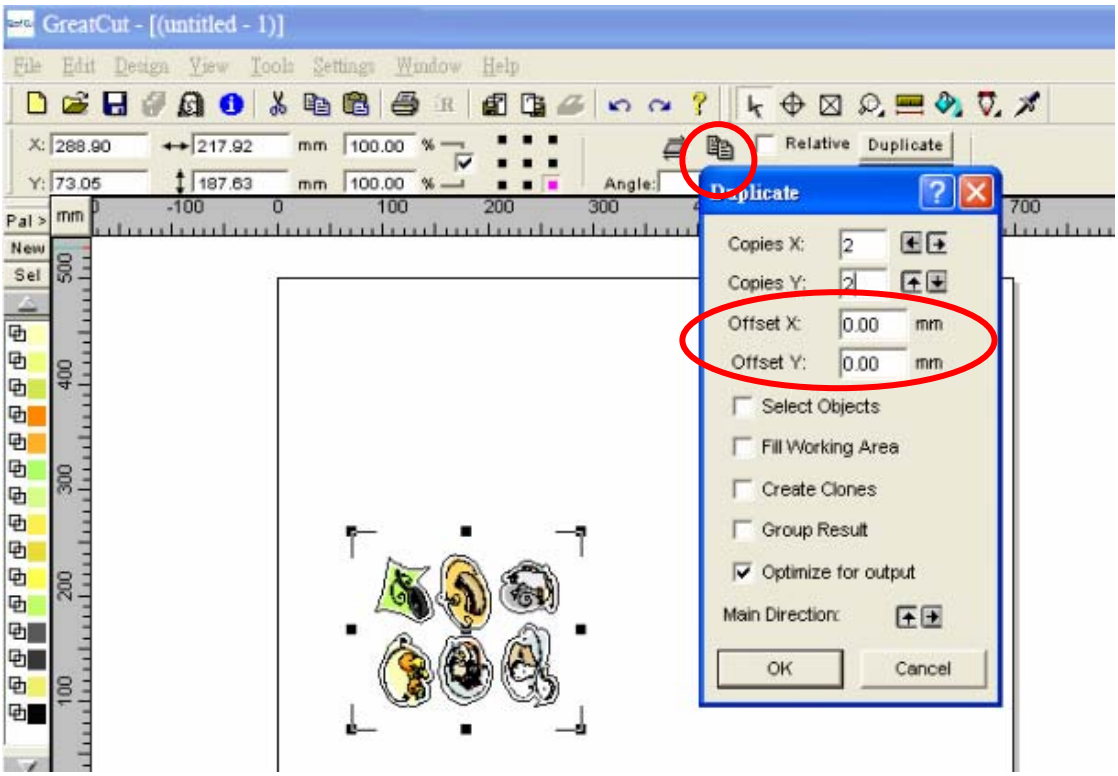


When you apply the “Multiple Copies” function, the value that has been set in this section will still be applied.

Set the registration marks.



Select the whole image including registration marks and click the multiple copies button.



Note: The spacing of vertical & horizontal (Offset X & Y) should be ≥ 20mm or = 0mm.

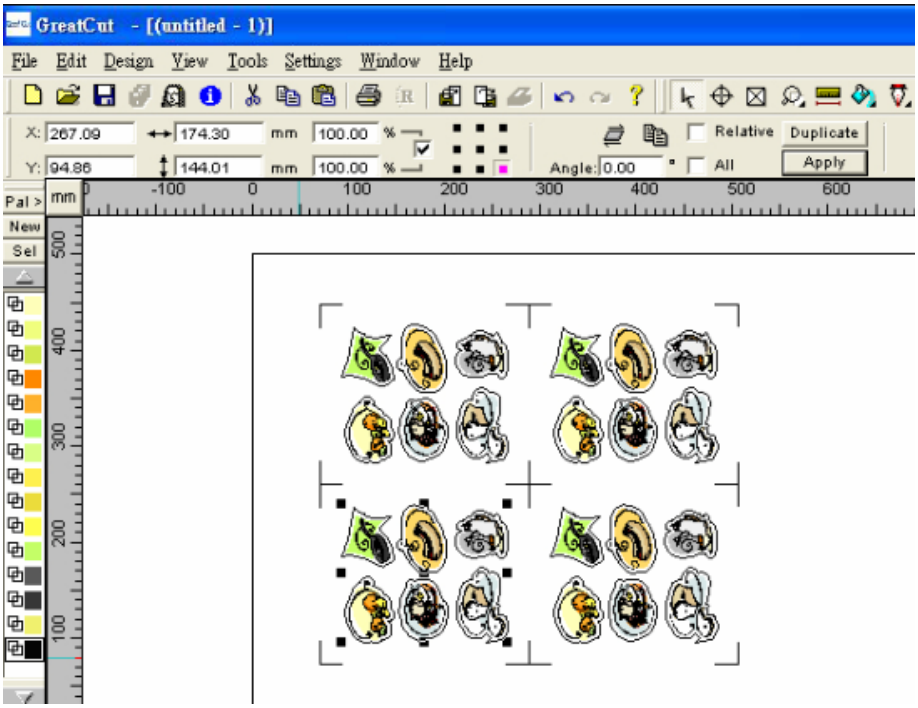
Step 4 Print out the image.

If you apply the Multiple Copies function, you will have to set up the multiple copies function with GCC cutting plotter by following the steps below.

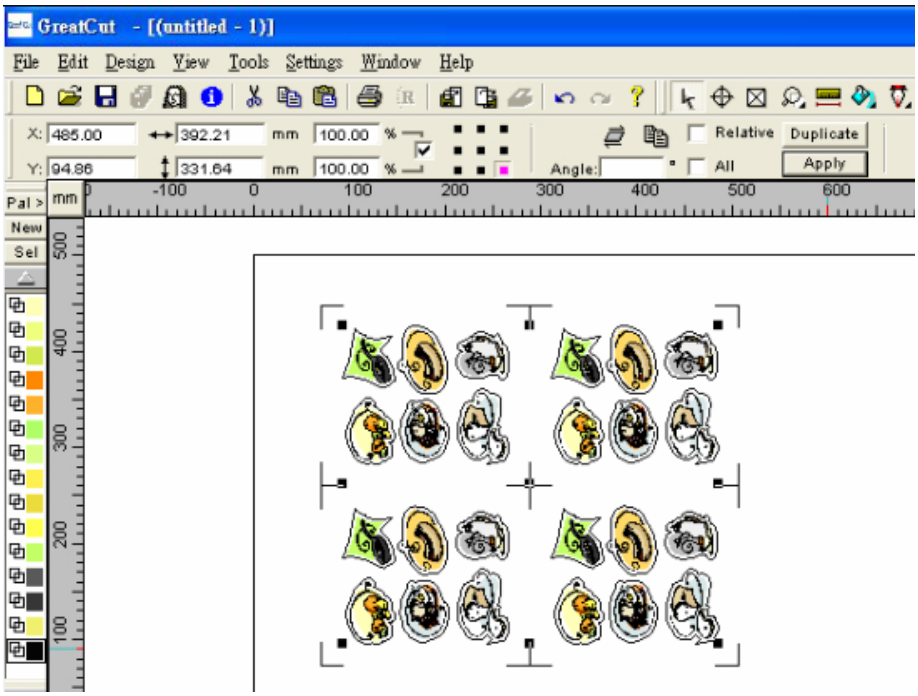
*Please note that you cannot select the whole images when output the multiple copies of images. You only need to select the contour line of original one and set up the value with GreatCut and then you can send it to GCC cutting plotter.

See the example as below.

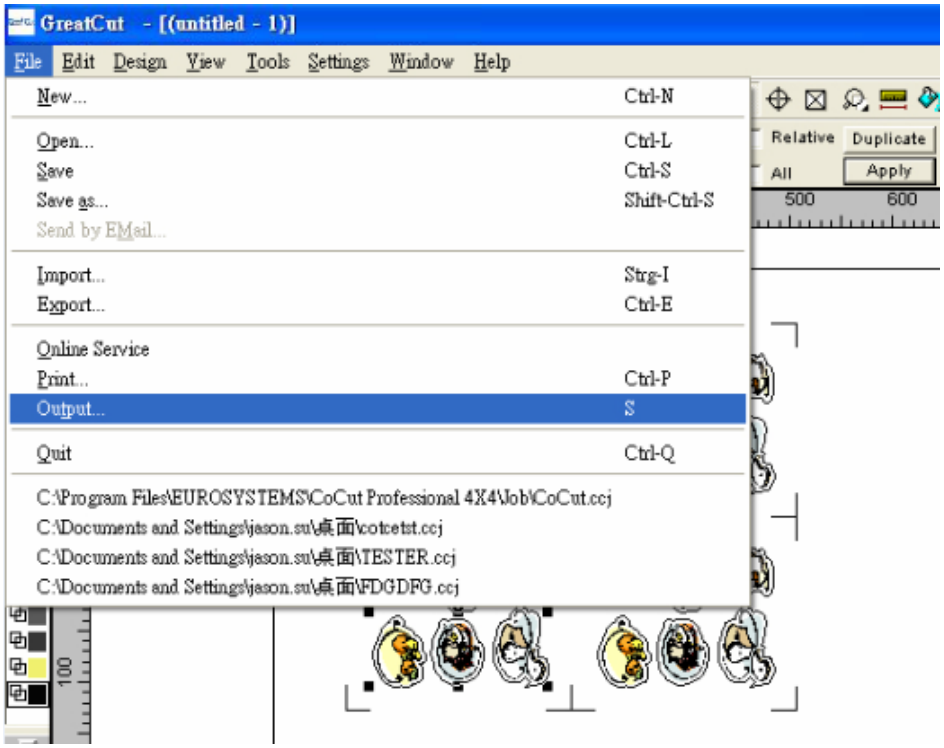
Right: (You should select the contour line but not the image.)


GreatCut - [(untitled - 1)]
File Edit Design View Tools Settings Window Help
X: 267.09 174.30 mm 100.00 %
Y: 94.86 144.01 mm 100.00 %
Relative Duplicate
Angle: 0.00 All Apply
Pal > New Sel
mm
-100 0 100 200 300 400 500 600
100 200 300 400 500

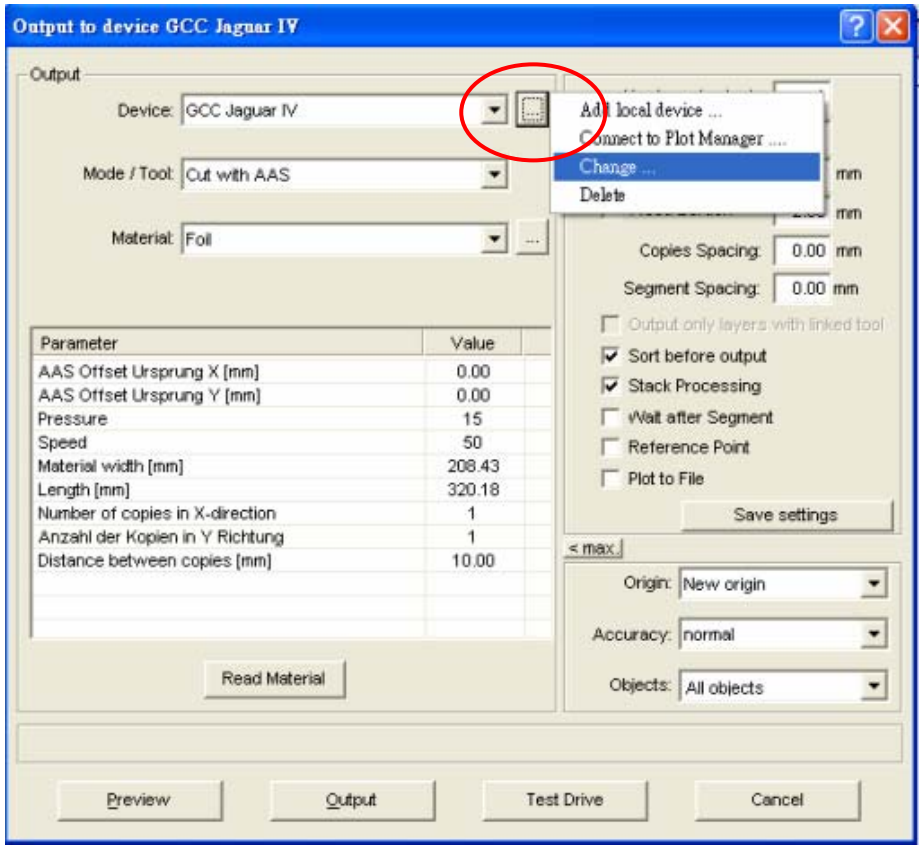
Wrong: (You cannot select the whole images.)


GreatCut - [(untitled - 1)]
File Edit Design View Tools Settings Window Help
X: 485.00 392.21 mm 100.00 %
Y: 94.86 331.64 mm 100.00 %
Relative Duplicate
Angle: All Apply
Pal > New Sel
mm
-100 0 100 200 300 400 500 600
100 200 300 400 500

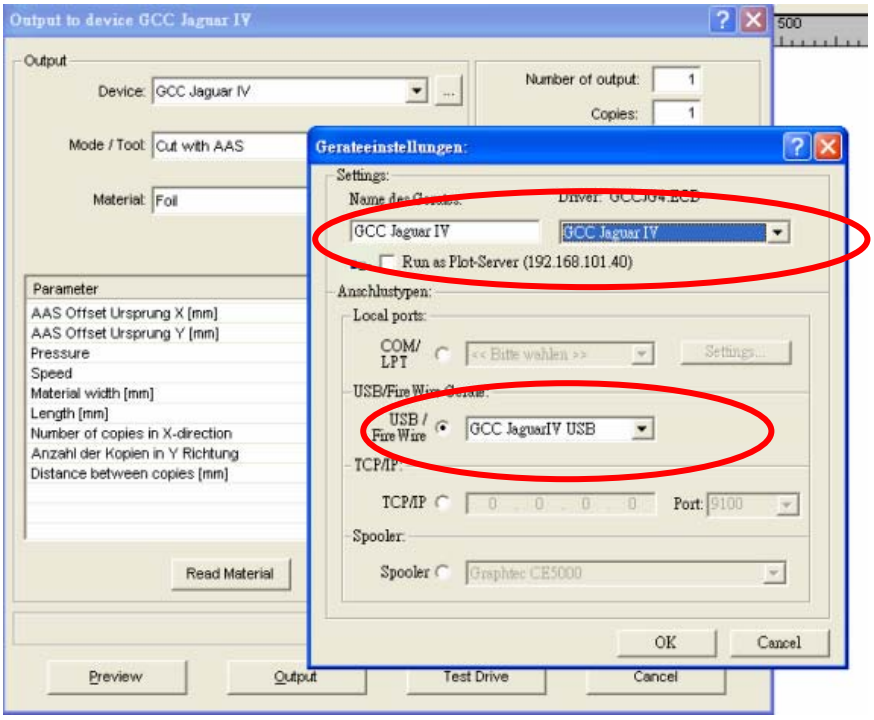
Now you can output the image.



A. Before output, you need to set up your cutter.



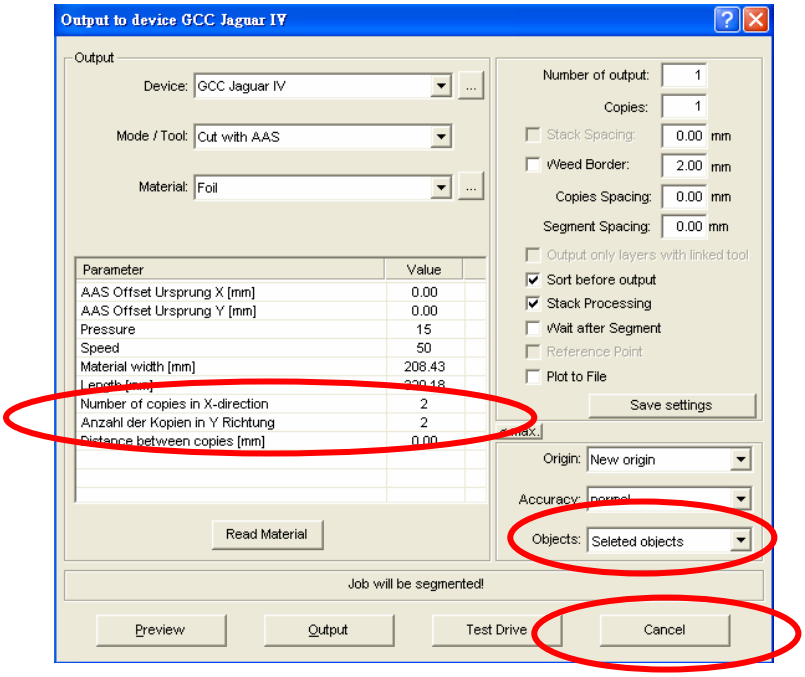
B. Select the series of cutter and the USB port.



C. Set up the number of copies you need to cut here.

Note:

1. The number of copies and distance between copies should be the same as you made above.
2. You should confirm that the option of objects must show “Selected objects”.



Step 5 You now have a perfectly cut image.

Enjoy!

Illustrator Plug-In Instruction

AASII VBA Installer is applicable for Illustrator Version CS3, CS4, CS5

Installation

1. Check the “AAS Illustrator Installer” folder in Puma III Installation CD, and double click the “AASIIInstaller.exe” file to run the installation program.

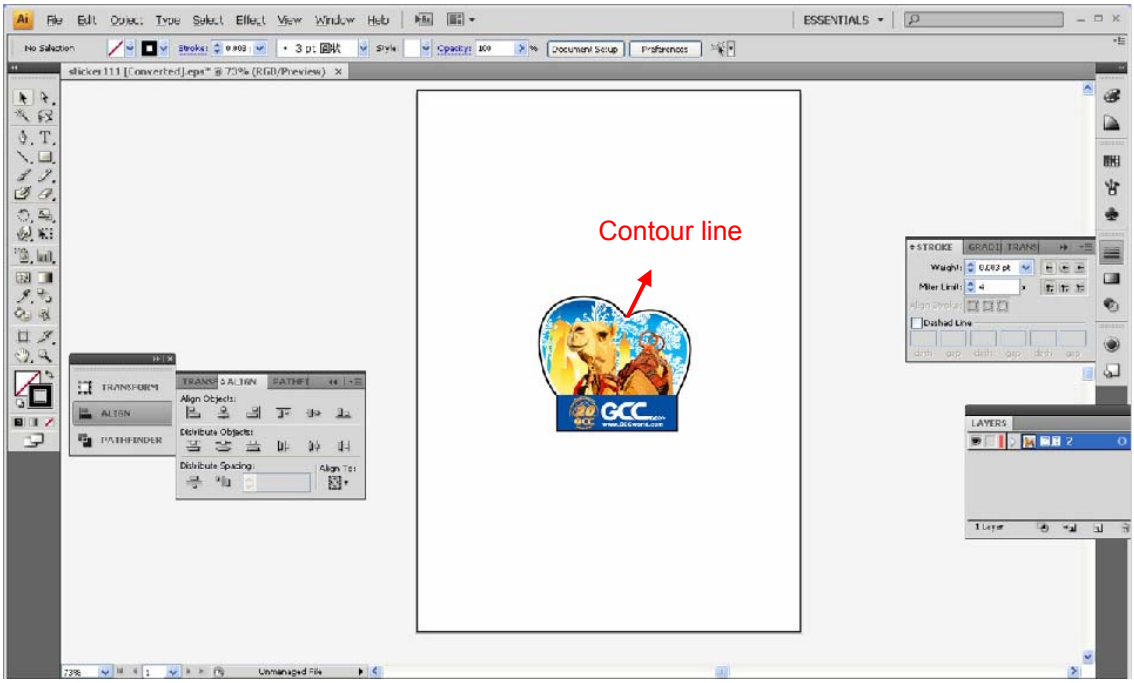
2. Press the “Install” button to begin installing GCC AASII Illustrator VBA.

GCC AASII Installer
Welcome to the installer for AAS II VBA on
CorelDRAW version 11 12 13 14 15 and
Adobe Illustrator CS3 CS4 CS5
It is strongly recommended that you exit
CorelDRAW and Illustrator program
before continuing
Install
Exit

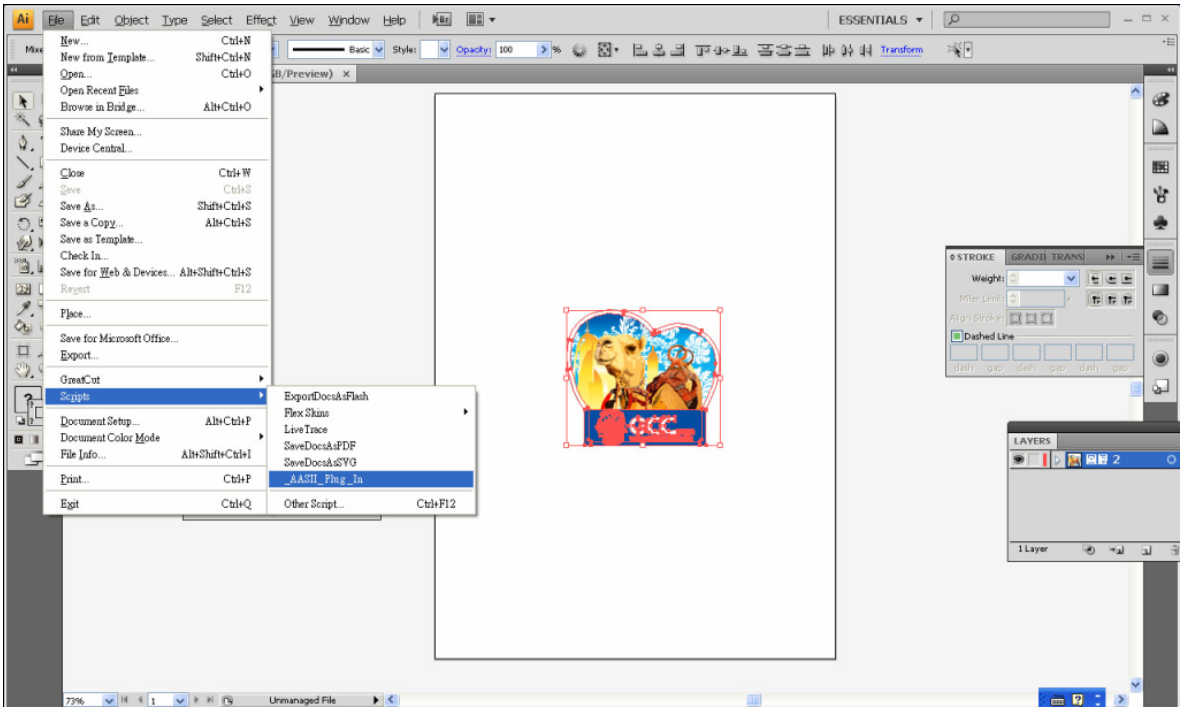
User Instructions

1) Open Illustrator.

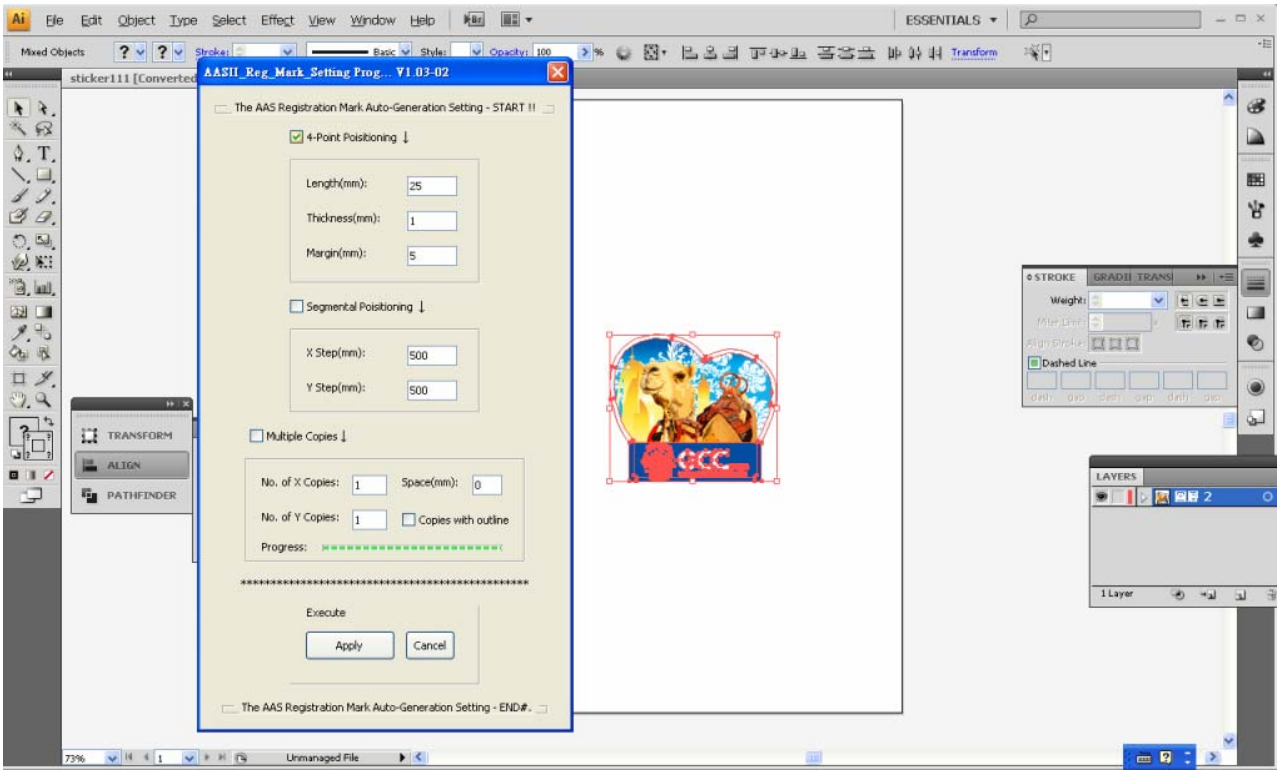
2) Edit your image and create a contour line (Note: you must have the line width set as 0.001mm).



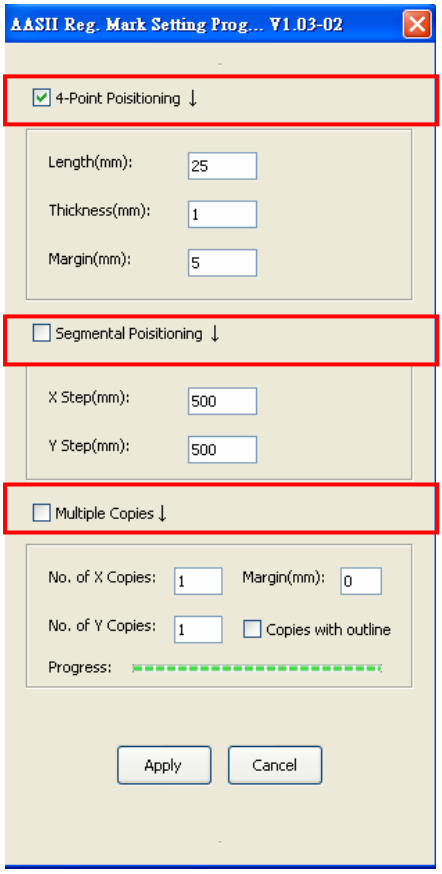
3) Click on the image and apply the AAS function (File→Scripts→_AASII_Plug_In)



4) Select the registration marks needed



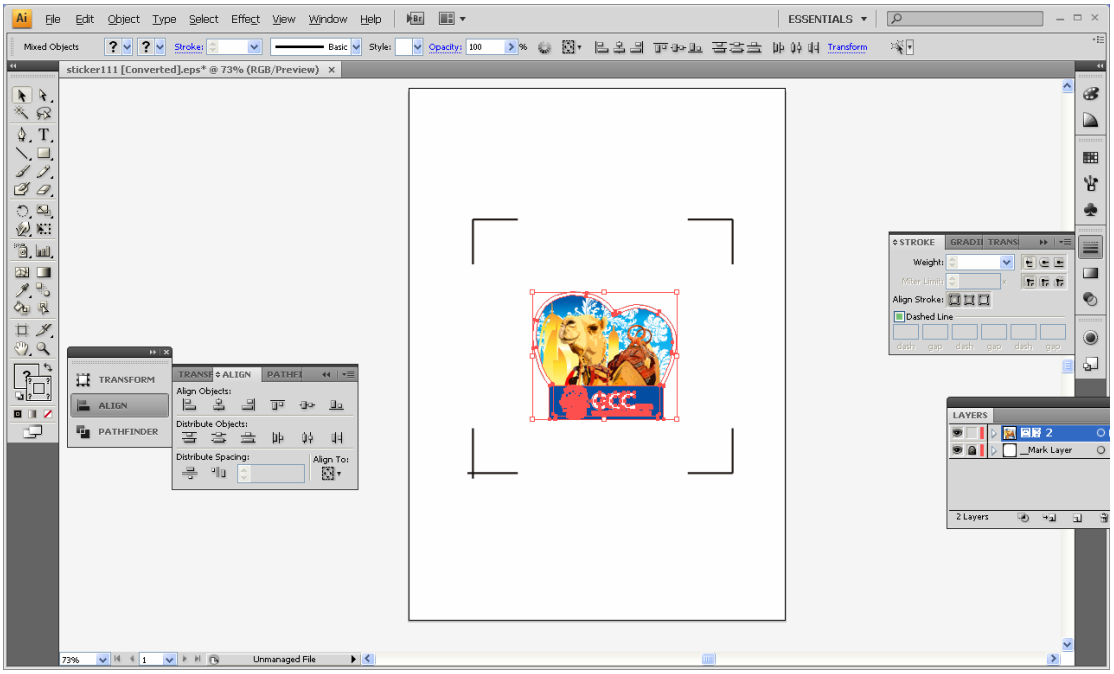
5) Three types of registration marks are introduced here: 4-Point Positioning, Segmental Positioning and Multiple Copies.



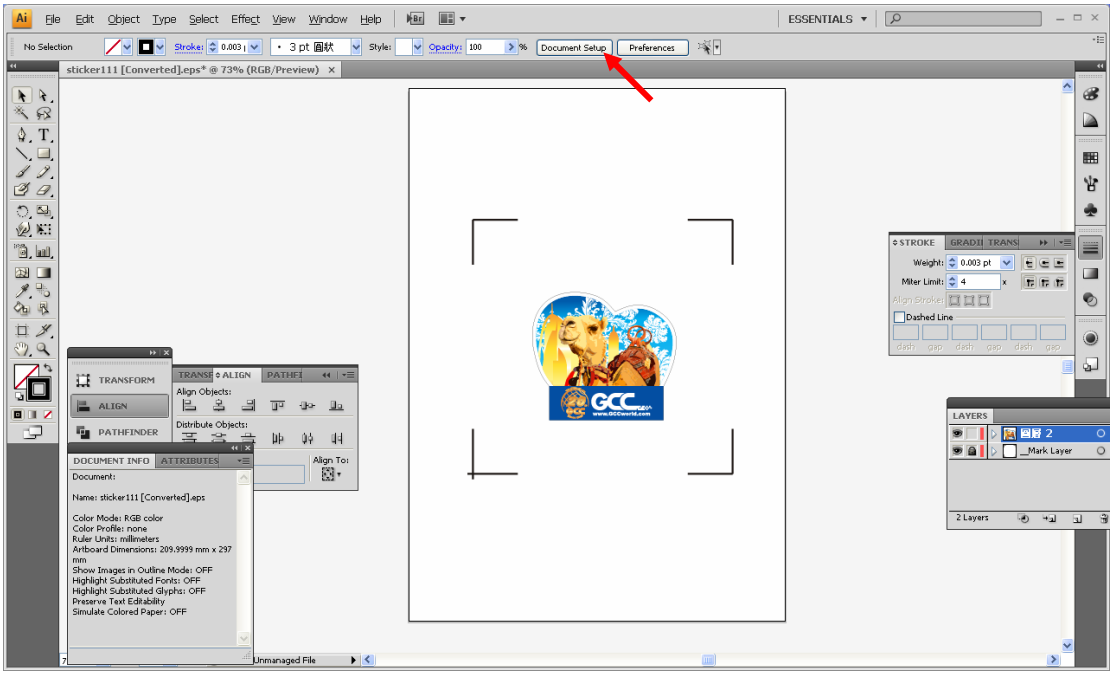
Note:

The values entered in the “4-Point Positioning” section (length, thickness and margin) will still be applied when you tick “Segmental Positioning” or “Multiple Copies”.

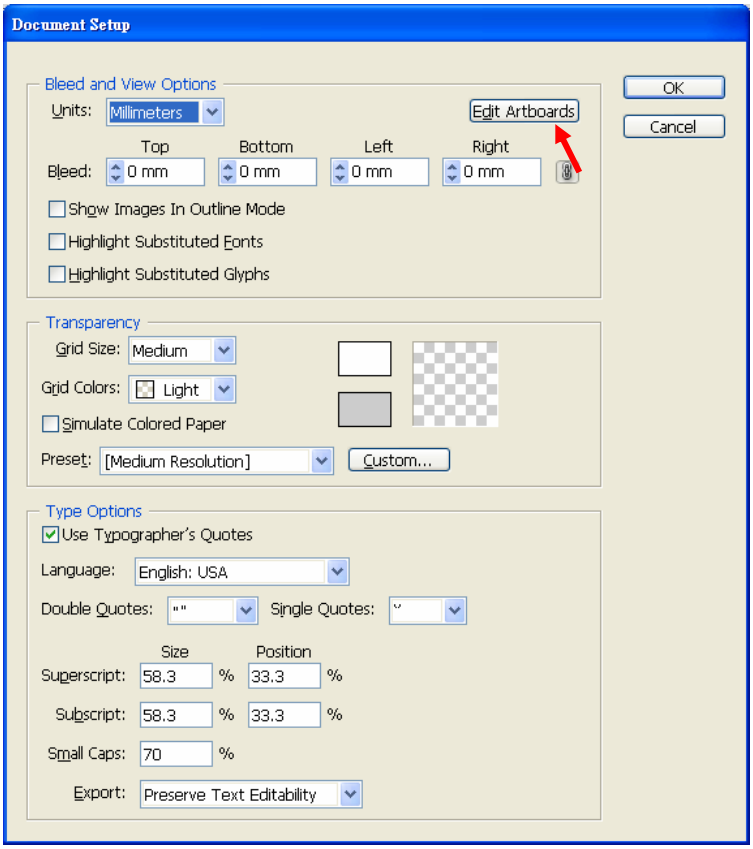
6) Confirm the registration marks (the 4-Point Position mark is used as an illustration in the following steps).



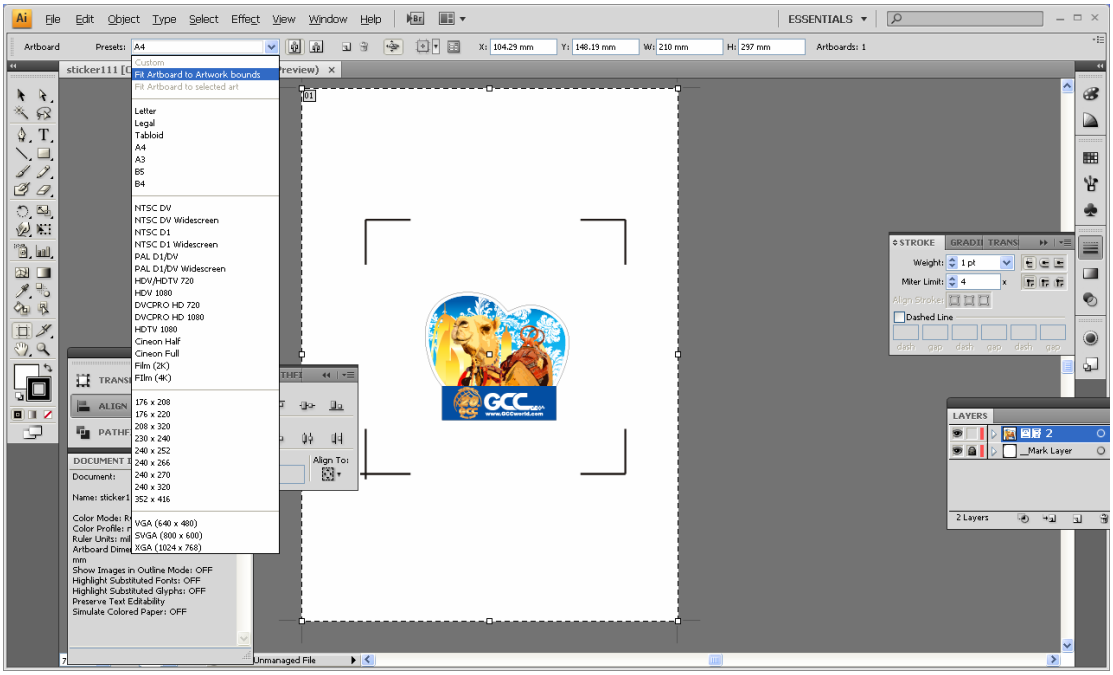
7) Click on the blank area on the page and then click “Document Setup”.



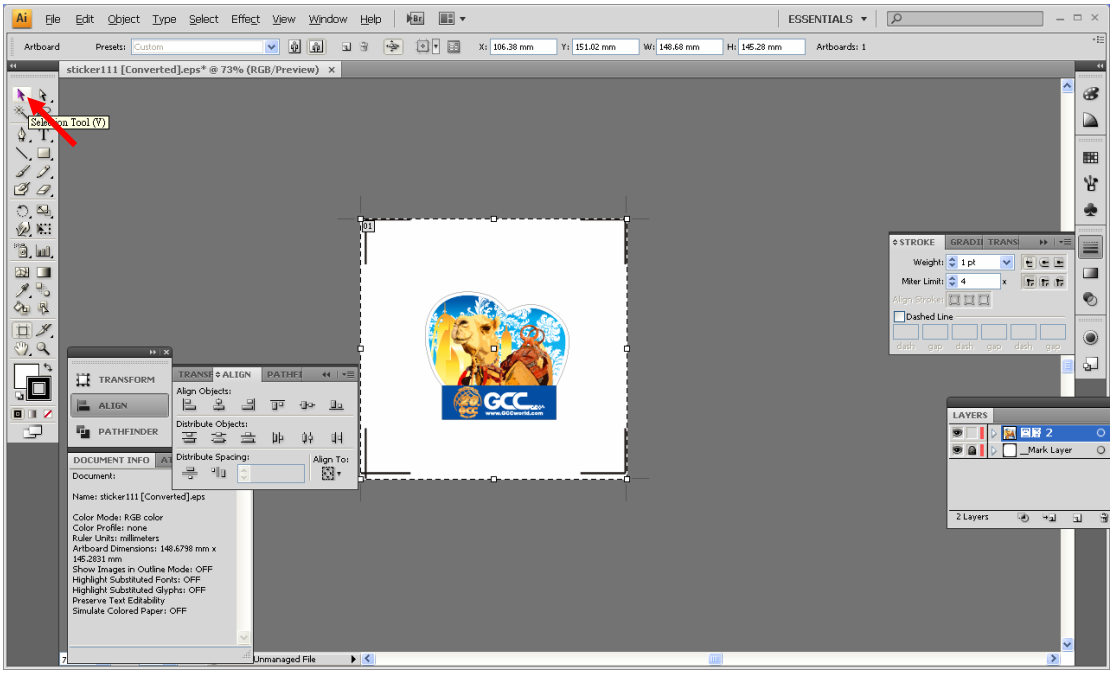
8) Hit “Edit Artboards”.



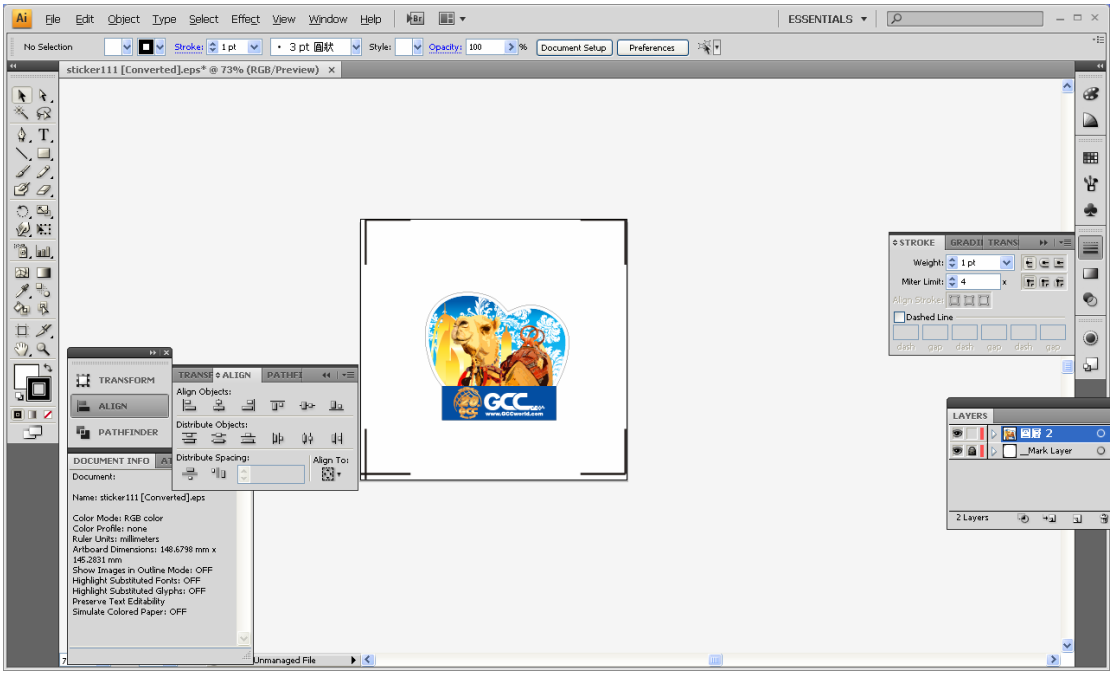
9) Click on “Presets → Fit Artboard to Artwork bounds”.



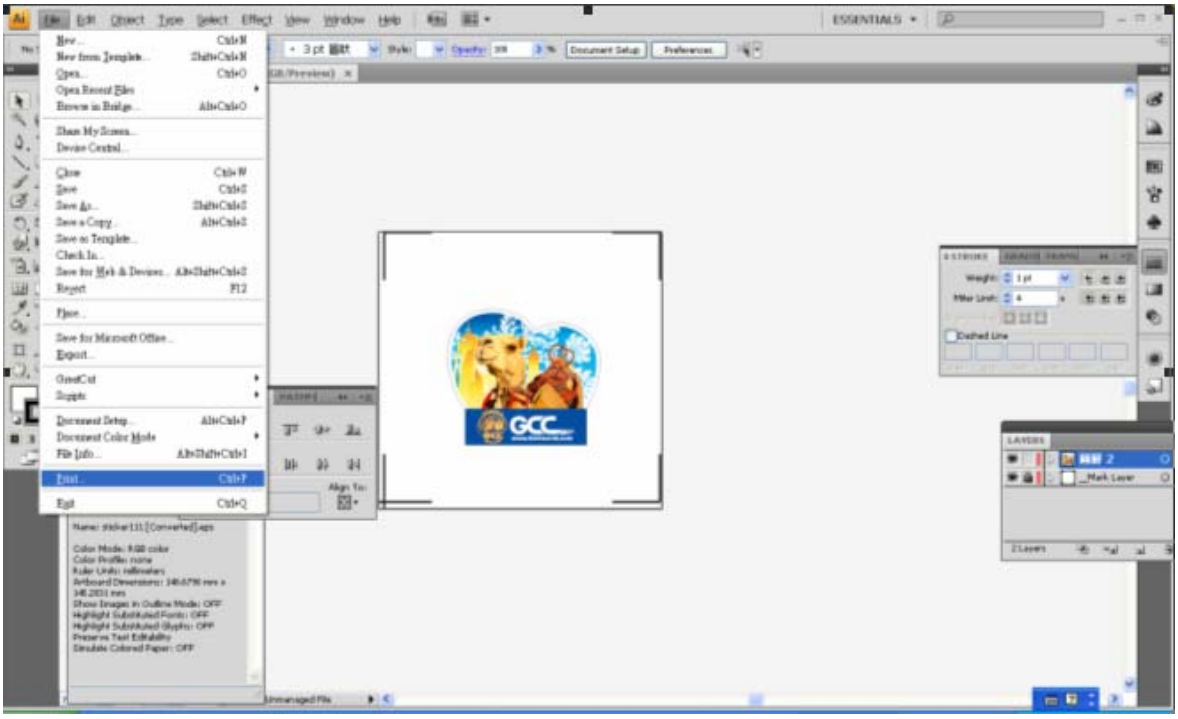
10) Please move your mouse to the tool bar on the left when step 10) is finished and then click “Selection Tool”.



11) This will take you back to the edit mode.

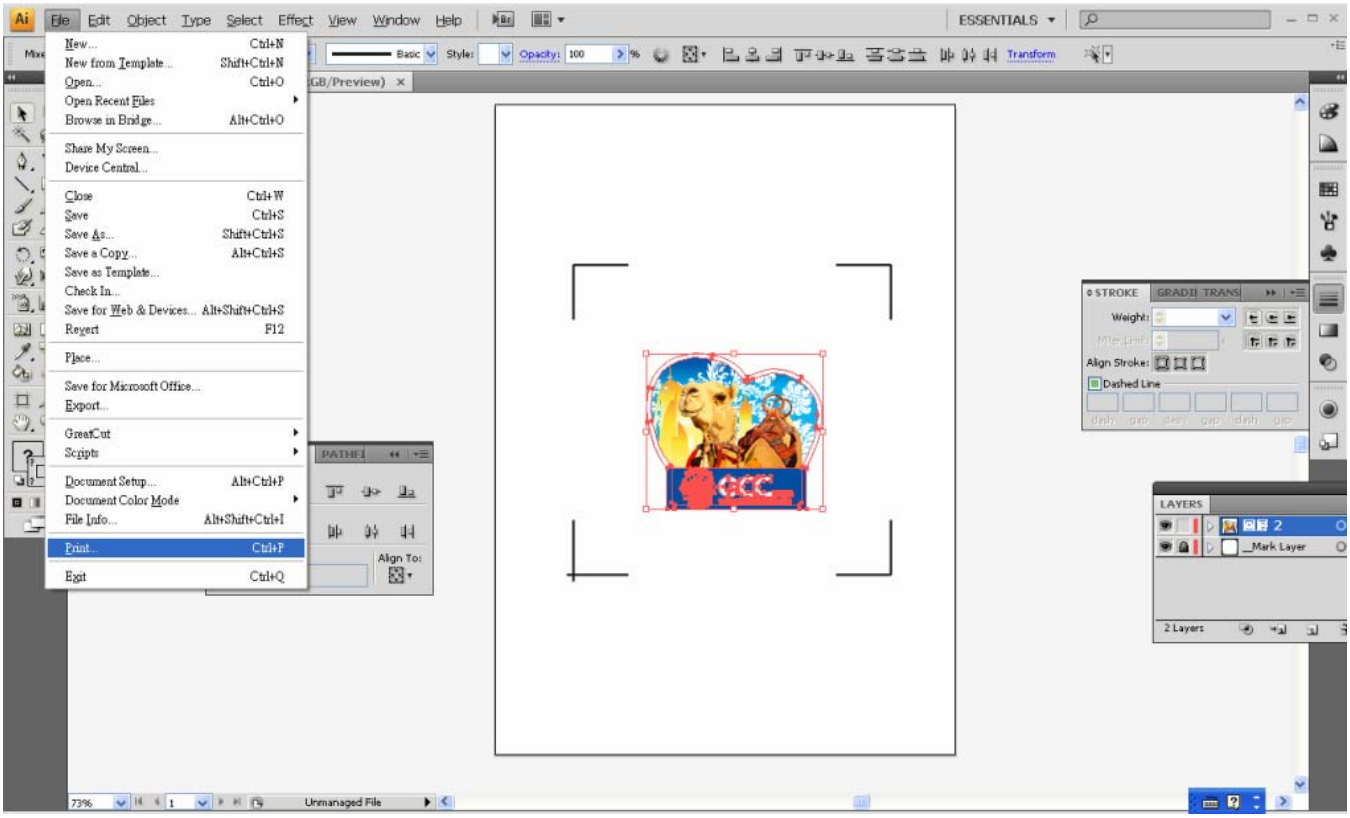


12) Print out the file with the contour line and the registration marks.

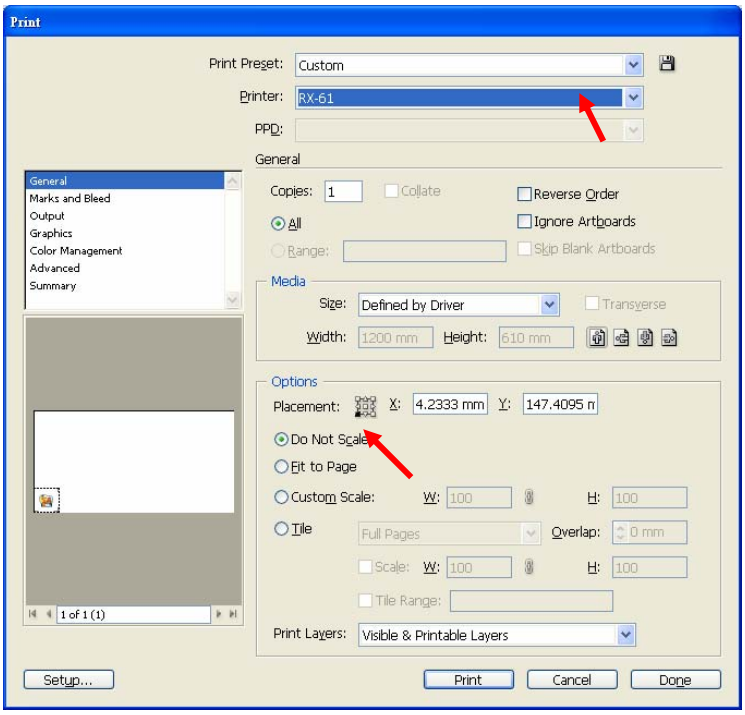


13) Place the printed file on the cutter, lower the pinch rollers and then position the carriage at the origin of the registration marks.

14) Send the file to the cutter.



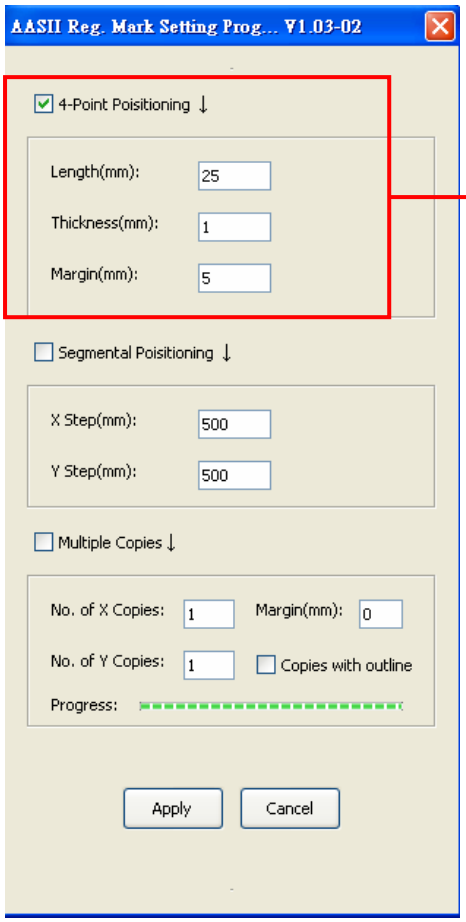
15) Select the cutter model, position the object in the bottom left corner and then click “Print”.



16) Your job is now completed.

Three types of registration marks

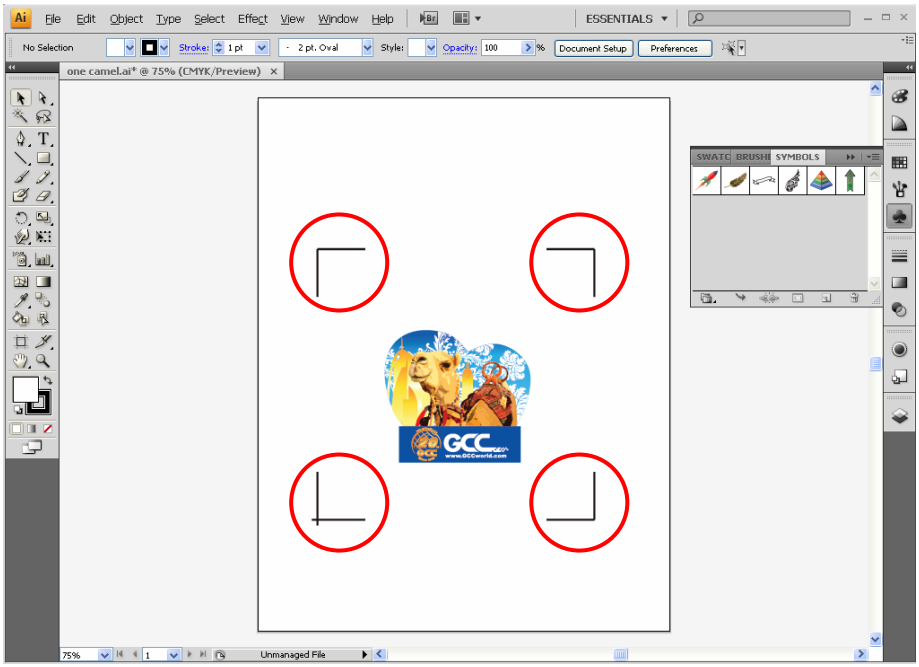
4-Point Positioning



4-Point Positioning

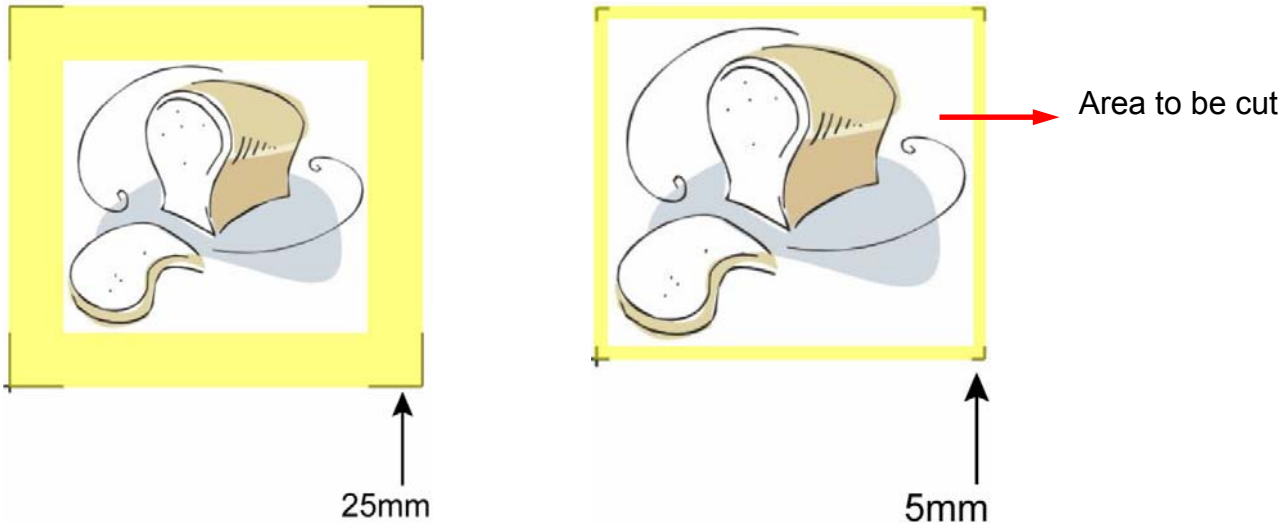
- Length: The length of marks
  → Range: 5mm~50mm
  → Optimized Setting: 25mm
- Thickness: The line thickness of marks
  → Range: 1mm~2mm
  → Optimized Setting: 1mm
- Margin: The distance between marks and images
  → Range: 0mm~50mm
  → Optimized Setting: 5mm

The system will create the 4 marks as shown in the picture below.



Note:

1. To save your materials, in addition to amending object margins, you can also adjust the length of the registration marks (5mm minimum) when you apply 4-Point Positioning (see table 1 for suggestions based on different material sizes). The smaller the size is, the smaller the distance between the object and the registration marks is (see the figures below).



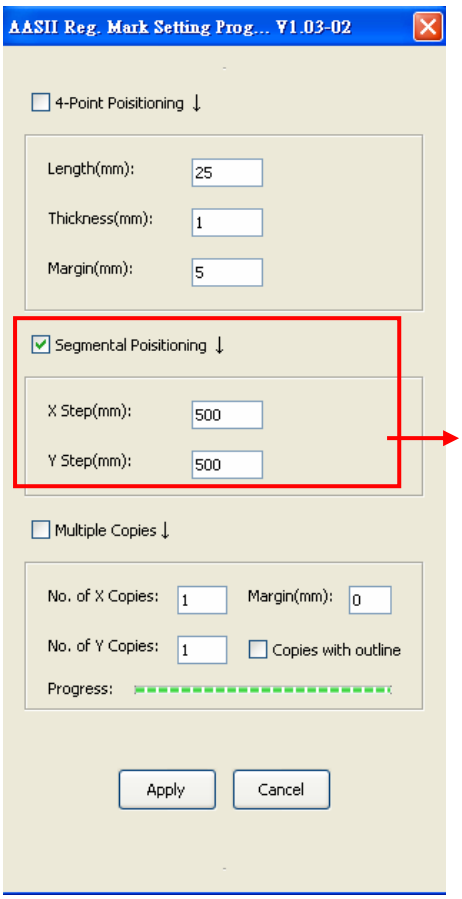
Page size (unit: inch)	Suggested mark length (unit: mm)
A6 (4.13 × 5.83)	5
A5 (5.83 × 8.27)	8
A4 (8.27 × 11.69)	11
A3 (11.69 × 16.54)	16
A2 (16.54 × 23.39)	23
A1 (23.39 × 33.11) and above	25*

Table 1

*25mm is the suggested value for the registration mark length

2. The size of the registration marks would affect the accuracy of registration mark detection so please make sure the amount you enter is reasonable.

Segmental Positioning

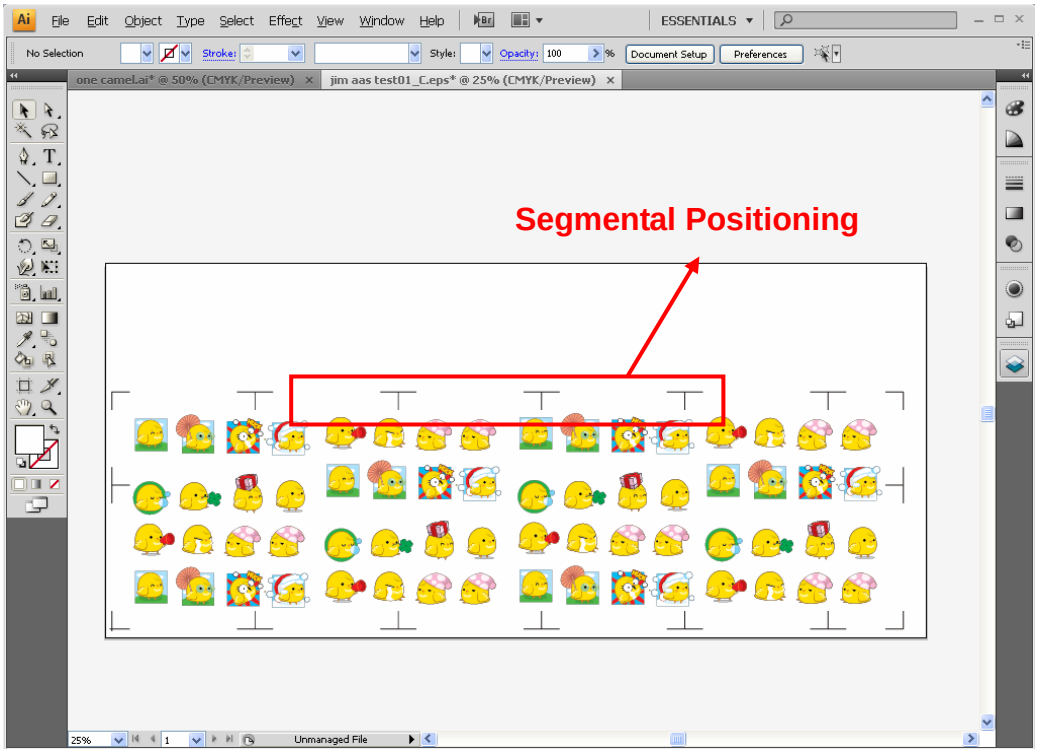


For precise cutting quality, it is suggested to select “Segmental Positioning” when you are working on an extra long or large-sized image to increase cutting accuracy.

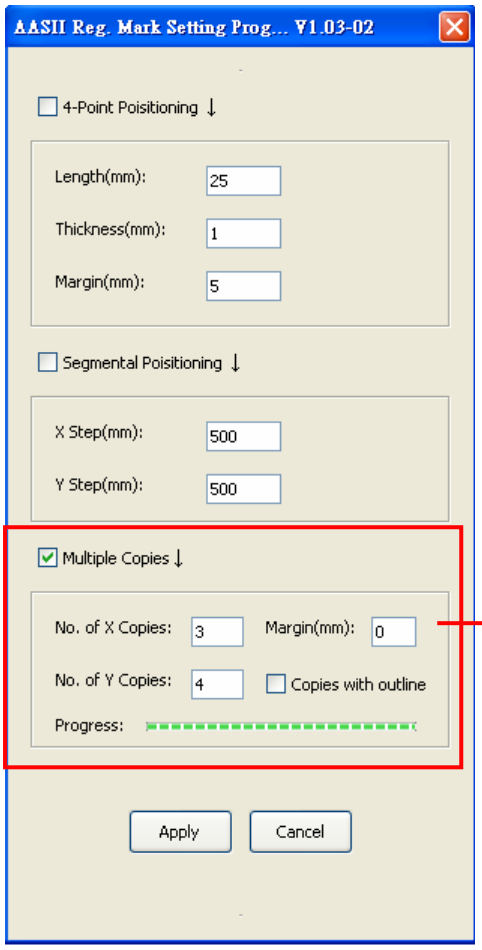
Segmental Positioning

- X Step: The distance of intermediate position on the X axis
- Y Step: The distance of intermediate position on the Y axis
  → Range: 200mm~600mm
  → Optimized Setting: Less than 500mm

The system will create the marks as shown in the picture below



Multiple Copies



It is suggested to select “Multiple Copies” when you would like to make several copies of one image on your material to increase cutting accuracy.

Multiple Copies

- No. of X Copies: The numbers of copies on X axis
- No. of Y Copies: The numbers of copies on Y axis
  → Range: 1~50. (The more copies you make, the more time is needed for data transmission.)
  → Numbers of X Copies * Numbers of Y Copies = The total amount of image copies
- Copies with outline：To show outlines of image graphics
- Margin: Space between marks; must be 0 or ≧ 20, no negative numbers allowed

The system will create the as shown in the picture below.